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Specimens *of* English Composition

For use in College Classes in
Rhetoric and
Composition

EDITED BY

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PREFACE

THE use of volumes of specimens like the present is so widespread, and the recognition of their value is so universal among teachers of English in colleges, that it is unnecessary here to enter into a discussion of their general usefulness. It seems appropriate, however, to point out the more important respects in which *Specimens of English Composition* differs from other books of the kind, and to indicate the reasons for the changes that have been made.

Several of the selections are noticeably longer than those found in other volumes of specimens. It has been customary, especially in dealing with exposition and argument, to multiply the number of short and incomplete extracts; to say, in effect, this is the way so-and-so handles a particular element of his explanation, or introduces his story, or closes his argument. And this is certainly one of the useful functions which a book of specimens should perform. But if the selections are too exclusively fragmentary, if the student's attention is made to center mainly, or even largely, on incomplete bits of writing, there is danger that he will come to lay more emphasis upon the parts than upon the whole, and will regard writing as a mechanical fitting together of patches rather than as the presentation of an idea with all its detail and by-paths subordinated to a main design. To avoid this marked stress upon the parts of a composition, with its implication that a literary product is a mechanism divisible into separate pieces, and to focus the student's attention upon the problems of writing as they actually present themselves, has been one of the reasons for including the longer selections. There is still material enough for the study, let us say, of introductions as introductions, but there is, in addition, material for the study of introduc-

tions as organic parts of a whole. Another reason for the inclusion of the longer pieces is the positive need felt by many teachers for articles of which outlines and abstracts may profitably be made. The intellectual discipline involved in laying bare the structure and in stating briefly the leading ideas of an extended exposition or argument is not to be gainsaid, and perhaps in no other way can the student be brought to realize so vividly how largely successful writing depends upon fullness of information, close thinking, and a sense of structure. Short extracts cannot serve the purpose adequately: they rarely present problems of structure; and a student can write abstracts of them by a mere process of condensation which involves no real grasp of what the writers have to say.

Emphasis has been given to exposition and argument, both by the position they occupy and by the space allotted to them. One reason for this is the belief that exposition and argument are of greater practical value to the average student than any other kinds of writing. For one college graduate who writes novels, or stories, or descriptions, there are hundreds who have to explain how something works, or how it ought to work, or why it would be better to do one thing rather than another. The need for a body of fact to build upon, the need for precision, for orderly thought, for method, are things most strongly insisted upon in work in exposition and argument, and they are of value to any man, even if he afterwards never puts pen to paper. Exposition and argument afford, too, the simplest and most convenient approach to a consideration of the laws, logical and stylistic, which underlie the art of writing; because of their more purely intellectual qualities they yield to the student's analysis more readily and with less violence to literary fact than do narration and description. It is not that narration and description are less reducible to law, but that their analysis is frequently more subtle because of their emotional elements, and because they are apt to be handled with relatively greater freedom and variety. There is nothing, however, in the arrangement of the book to hinder the teacher who wishes to begin with narration or description from doing so, nor is there

anything to prevent the teacher from devoting most attention to those sections of the book which he considers most valuable for his purposes.

The addition of an appendix containing faulty compositions is due to the belief that the training of the student should be negative as well as positive. By means of these selections he is brought face to face with the fact that to ignore or run counter to the laws he has seen illustrated in the other sections of the book is apt to lead to unfortunate results. It is not always enough to tell the student that this is so; and the criticism of defective writing, if done thoroughly, but in moderation, is a simple and efficient means of helping him to a keener realization of the pertinency of rhetorical laws. The experience of many college teachers of composition leads them to believe that if a thing is worth teaching it can hardly be brought home to the student too forcibly or in too great a variety of ways.

The classification of material adopted in this book is, with one exception, that generally used in modern rhetorics, and it was adopted solely for convenience. As a matter of fact, not all writing can accurately be grouped under the customary four headings: argument only rarely exists apart from exposition, and description and narration are usually bound closely together; there are numberless essays, novels, arguments, volumes of travel, etc., in which two, three, or even all four of the "kinds" of writing are combined; the essay by Charles Lamb, reprinted in Part One, may be cited as one example out of many in which narration, description, exposition, and argument are blended together. As in actual practice no sane writer ever stops to consider whether he is writing pure exposition or pure argument, it is only fair to give to the student a hint that it is more important that he should have something to say and should say it as well as he can, than that he should be able to tag his work accurately with this or that particular label. To remind the student, then, that the usual classification is arbitrary, the title of the first section of this book has been made not merely "Exposition," but "Exposition and Miscellaneous Prose," and articles which do not come absolutely within the formal

definition of exposition have been included in it. It is quite possible, as several books of selections show, to choose only those examples which belong strictly to the type, but in the opinion of the editor of this book some neatness of classification may well be sacrificed if a closer approximation to the real conditions of writing can thereby be gained. For this reason, also, two selections which very clearly show a combination, in the one case of narration and description, and in the other of narration, description and exposition, have been included in Part Three.

The present volume contains a larger amount of material than is usually found in books of selections, and this gives the teacher who uses it elbow-room. His range of selection is large enough to permit him considerable freedom in the choice of the material he assigns. It is not to be expected that the individual teacher will agree with everything that is said in the various articles (there is no reason why he should), nor that he will wish to use all of the selections; but he should find enough that is adapted to his needs to make the book useful to him and to his classes.

It gives the editor great pleasure to acknowledge his indebtedness for valuable suggestions to his colleagues, Dr. George W. Benedict and Mr. William T. Hastings, to Messrs. Eliot G. Parkhurst and Laurence R. Grose, and for unfailing counsel and criticism, to Professor Lindsay T. Damon. To the following authors and publishers, who have permitted certain articles to be reprinted, he gives his hearty thanks: Mr. Chester Bailey Fernald and Professor Paul Hanus; The Century Company, Houghton, Mifflin & Co., The Outlook Company, Charles Scribner's Sons, The Atlantic Monthly Company, The John Lane Company, Brentano's, The Sun Publishing Association, D. Appleton & Company, and Walter Baker & Company.

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PART I.

EXPOSITION AND MISCELLANEOUS PROSE

REFINING CRUDE PETROLEUM

The enormous supplies of petroleum in this country never had any great industrial value until some method of purification or refining was invented. The early attempts to use the crude oil for domestic lighting purposes in various places were invariably unsuccessful, on account of the sooty, smoking flame, and the extremely disagreeable, nauseous odor. Use as an illuminant was the only avenue of development which seemed to offer any real possibilities, but it was absolutely necessary that the quality of the oil should be improved by the removal of these objectionable features, if its use were to become general.

Purification of petroleum was done in a rough way many years before the modern process was perfected, but never on a very important scale. The medicinal oils used in European countries two centuries ago were generally subjected to some process of distillation or filtration. Refined illuminating oil from the Galician districts was introduced in the early part of the last century, and soon after that time filtering through charcoal was tried in this country to remove the odor and improve the general appearance of the crude oil. The first important refining plant in the world, however, was probably erected in the Baku district about 1823. It consisted of an iron still having a capacity of forty buckets, and said to give about sixteen buckets of so-called "white naphtha" from each charge. This refined oil found a ready sale at the great Russian fair at Nishni Novgorod, presumably to be used in lamps.

Petroleum refining in this country began in a small way about 1855, with Kier's experiments to turn his medicinal oil to some more valuable use. The manufacture of

so-called "paraffin oils" from coal and shale had increased so rapidly in the decade following 1850 that there were some fifty or sixty establishments in the eastern part of the United States when Drake's well was opened. Kier's results had already shown clearly enough that paraffin oils could be secured more easily from petroleum than from coal or shale, and more cheaply also if the supply of petroleum were large enough. The prospect of securing petroleum in large quantities by following Drake's example made the entire shale oil industry totter. The owners of the refineries, many of which were then only fairly started, saw themselves facing ruin, until a simple and easy salvation appeared in converting their plants into petroleum refineries. Thus, the latter industry was able to profit immediately from the existence of this large number of ready-made establishments.

Kier's first attempts at refining petroleum had given him a "carbon oil" distillate, distinctly superior to the crude oil, but far from being perfect. The strong odor still persisted and brought a storm of complaints from the consumers. General dissatisfaction was expressed also on account of the rapidity with which the oil turned black, and on account of the formation of a hard crust on the wick which interfered with the free burning of the flame. As a result the "carbon oil" gained favor slowly, despite the fact that an army of canvassers and selling agents spread over the country to boom its use. Something had to be done to place petroleum oil on as satisfactory a basis as were the shale and coal oils. Distillation alone would evidently never suffice. Chemical treatment to purify the products after distillation was tried and soon demonstrated that successive manipulations with solutions of alkali and acid would remove the chief objectionable features. These improvements, already familiar abroad, had been introduced here about the time Drake went to the oil regions. Therefore, as soon as his well was struck, the refining of petroleum was in a condition to expand and drive the shale oil industry out of existence in short order.

The most important process in the refining of petroleum, as it is carried on today, consists essentially of two parts:

first, heating the oil in a still until it vaporizes in the same way as boiling water passes into steam; and second, condensing these vapors just as steam condenses on cold objects. The successful separation of the different products depends on the fact that each of the many compounds composing crude oil has its own particular boiling point, and thus allows gradual heating to carry on the process of division, or fractional distillation, as it is called. The stills where the crude oil is heated, the condensers where the vapors of successive divisions are returned to the liquid form, and the tanks for storing the refined products, therefore, represent the important parts of the skeleton of every refinery.

The early refineries were mainly small plants with a few vertical iron stills resembling giant cheese boxes, and having a capacity of twenty-five to seventy-five barrels each. As the industry expanded, however, and made constantly increasing demands on the capacity of the refineries, larger and larger stills were introduced. A horizontal cylinder still was found to offer various advantages over the old cheese box style, and the cylinder form, with a capacity of about 600 barrels, is the type now generally used in this country.

Each still may have its own condenser, or several stills may be connected with a common condenser, although the former arrangement is preferable. In either case the condenser is the same, consisting of coils of three or four inch pipe several hundred feet long, and ordinarily kept cool by thousands of gallons of water pumped over them daily. The hot vapors entering the condenser from the still come in contact with the cold pipe and return to liquid form, in the same way as steam on a winter day will collect on the cold glass of a window and trickle down the pane in tiny streams of water. The refined product of a dozen condensers may be turned into a single receiving tank until the limit of its capacity is reached, and then other similar tanks are pressed into service.

Between the condenser and the receiving tanks, the distilled oil has to pass through the stillhouse and undergo the keen scrutiny of the stillman, on whose skill the success

of the entire process depends. The condensed distillates make their entrance to the stillhouse through a V-shaped tube, such as are commonly inserted in drain pipes to prevent the passage of sewer gas, and which serves much the same purpose here. A vertical pipe on the condenser side of the V allows the uncondensable gases from the still, that is, those vapors which will condense only at very low temperature, either to escape into the air or to be led away to be burned under the still from which they came. The condensed distillate, now in the liquid form again, passes through the V tube and enters the stillhouse in what is called the separating box, a triangular, cast-iron affair. A glass door on one side of the box enables the stillman to watch both the color of the oil and the size of the stream as it enters the box. In this way, from the knowledge of long experience, he knows how to regulate his fires under the stills, and from occasional samples of the distillate he can determine when a different grade of oil has begun to vaporize in the still and is coming through the condenser. Shutting one valve and opening another close at hand turns the stream into a different receiving tank. So the process goes as long as separation is possible, or until some special requirements make it desirable to stop the distillation at a certain point.

The actual process of distillation consists in carefully separating the different hydrocarbon compounds which make up the crude petroleum. These "fractions," as the different compounds are called, are determined more or less arbitrarily by their weight as compared with an equal bulk of water, and by the ease with which they give off inflammable vapors.

Distillation may be done by what is known as the *intermittent process*, in which the major part of the operation is carried on in one still heated to successively higher temperatures by gradually increasing the fires beneath it. This method is most commonly used in the United States. Distillation may also be done by the *continuous process*, in which the crude oil is pumped through a series of stills, each succeeding one being heated to a constant temperature higher than that of the one preceding.

In the intermittent process, the crude oil in the still is subjected to a gradually increasing temperature, so that the different fractions pass off to the condenser in the order of their volatility. The lighter and more volatile compounds, that is, those boiling at low temperatures, are vaporized first, the heavy, less volatile compounds not appearing until the highest temperatures are reached. Different petroleums vary so widely in character, and the number of possible products is so large that each kind requires special treatment to secure the particular products for which it is best adapted. The distilling business, therefore, becomes decidedly intricate when examined in detail, and a high degree of skill must be exercised in manipulating the process so that it will yield the largest quantity and best quality of the valuable oils.

The general character of the treatment can be shown by comparing the two common processes known as "running to tar" and "running to cylinder stock." The main difference between these two processes is that the former gives the largest possible yield of illuminating oils and a small yield of heavier products for lubricating. The second process is intended to yield a maximum amount of the lubricating oils, with the illuminating oils of secondary consideration. In general, therefore, one process is the direct reverse of the other in so far as its chief object in view is concerned.

Both processes start with crude oil heated in the still, and the vapors passing off into the condenser. The most volatile of these vapors begin to appear before much of any heat is applied to the still. They can be condensed only by special processes at temperatures near the freezing point, consequently in the ordinary course of distillation they pass off into the air through the escape pipe from the condenser or are led under the still to serve as fuel. The first distillate which condenses and passes through the V tube to the stillhouse is a clear, colorless light oil, but, as the process goes on, the stream of oil entering the separating box becomes heavier, and the color gradually changes through yellow to darker shades. The stillman tests the density of the oil from time to time, and on the basis of

these tests and the color, he turns the stream into different tanks, by simply closing and opening convenient valves.

The stream passing through the separating box is continuous as long as the still contains any oil which can be vaporized, hence the stillman's divisions of the stream of distillates, or his "cuts," as they are called, are an exceedingly important part of the process. The first cut is usually made when oils of the naphtha class cease to appear. The second cut is the illuminating oil. In the "running to tar" process, the method known as "cracking" is employed after about two-thirds of the cut of illuminating oil has passed over, its object being to increase the proportion of illuminating oils obtained.

The exact changes which take place in the still during this "cracking" process are only partly understood. The process was discovered accidentally in 1861 by a stillman at Newark, N. J., who left his post one day after about half the contents had passed off, building a strong fire under the still to last until he returned, as he expected, a half hour later. Several hours elapsed, however, before he did return, and then, to his amazement, he found issuing from the condenser a lighter distillate than was being obtained when he left, whereas it should normally have been much heavier. Such an entirely unheard-of thing led immediately to experiments, in which it was found that a portion of the heavy distillate, normally coming through the condenser last, had condensed on the cooler upper portion of the still, and dropping back on the highly heated liquid had encountered a temperature hot enough to cause decomposition of some sort, so that a lighter oil was the final result. Many different devices have been invented to aid in this cracking process, and, though some refineries use it but little, cracking has been of enormous benefit in the case of certain petroleums, naturally yielding only a small percentage of kerosene, yet rich in the grades heavier than kerosene, and not heavy enough to be high quality lubricating oils. By cracking, many of these intermediate grades are broken up, and become valuable illuminating oil.

After cracking has given as much kerosene as can be secured the fires are checked, and the tar process stops so far as the first still is concerned. A certain amount of thick residue, or "tar," always remains in the still and must be removed before the still can receive another charge of crude oil. This tar usually goes to a second still, where further distillation gives lubricating oils, paraffin wax, and coke. The cuts of naphtha and illuminating oils are also either redistilled or subjected to further treatment to purify them and separate them into different commercial grades.

The process known as "running to cylinder stock" is essentially the same as the other up to the point where cracking would begin, except that it is usually applied to crude oils naturally adapted to the manufacture of lubricants. The important difference consists in heating the still by free superheated steam within, as well as by the usual fire underneath the still. The presence of the steam causes a more even distribution of the heat, and more completely vaporizes the volatile lighter oils from the whole charge without having to subject it to such a high temperature. When the distillate in this process appears too heavy for kerosene, instead of the cracking treatment, a third cut, known as the "wax slop," is often made. Different methods of handling this cut yield special brands of oil for a great variety of purposes, from the headlight oil of locomotives to the thin "spindle oils" used to lubricate light machinery. The entire elimination of the cracking process leaves a greater residue in the still after the "wax slop" cut is made and this residue, known as "cylinder stock," forms the basis for the manufacture of a host of lubricating oils.

The Russian process of continuous distillation differs from the American method only in using a series of a dozen or more stills, each of which is heated to a definite steady temperature. The crude oil passing from one still to another encounters these successively higher temperatures, which correspond to the boiling points of the different petroleum products. Each still constantly gives off a distillate of uniform character, while the series of stills

gives the same range of distillates as are obtained by the gradual application of increased heat in the intermittent system. The possibility of supplying the crude oil to the stills as fast as the distillates pass off results in important economies of time, less waste of fuel, and a minimum of injury to the plant by avoiding the cooling and reheating of the still. This process, however, is not well adapted to American conditions because of differences in the nature of the crude oils, and in the products most desired. The American refiner, in general, aims to produce as much kerosene or lubricating oils as possible, whereas in Russia the enormous demand for the residuum, or *astatki* for fuel, makes it nearly as valuable as any other product. There is, therefore, little inducement to increase the yield of kerosene and reduce the quantity of residuum by employing the cracking process, which can be done only in intermittent distillation.

The first distillates obtained from the crude oil by either process usually have to be redistilled or purified before they can be used. Any sulphur which is present must be removed either in the first process or subsequently. One method makes use of copper oxide in the first condenser, or in a specially constructed still, the sulphur by chemical union being removed in the form of a copper sulphide, from which the copper can be reclaimed and used over and over. Another method makes the separation by treating the distillates successively with sulphuric acid, caustic soda and litharge in agitator tanks built for the purpose, the removal in this case being in the form of a sulphide of lead. This treatment for sulphur is one of the most important and yet most troublesome processes of all, since the presence of a very small percentage of sulphur imparts a highly disagreeable odor to any distillate. No product can be sold until the last trace of sulphur has been removed.

The naphtha distillate, where obtained in important quantities, may be roughly separated into different grades, or cuts, known as gasoline, commercial naphtha, and benzine. When the division is made by the stillman, as they come from the condenser, washing with acid, water, caustic soda, and water again, in the metal agitators, to purify

and deodorize is the only further treatment necessary before they are ready for shipment. More often, however, all the naphtha distillate goes into a single cut as it comes from the condenser, is subjected as a whole to the deodorizing and purifying treatment and is then redistilled and divided into the three fractions mentioned above. This redistillation of the naphtha is done in a special still heated by steam, and with the outlet, through which the vapors reach the condenser, rising for some distance before it actually enters the condenser coil. This arrangement is introduced to prevent any liquid from being carried over into the condenser with the gas. The condenser for the naphtha still also differs from the others in having two coils of pipe, the first of which has a "back trap," or pipe leading back to the still, so that any heavier oils present, condensing quickly, will be returned to the still. The main body of the naphtha distillate is condensed in the second coil of pipe, and is cut into standard grades by the usual separating-box method, but, in order to secure the very lightest of the products, it is necessary to use a third coil surrounded by a freezing mixture of salt and ice. The different cuts obtained from this distillation are immediately ready for use as soon as tested to prove their quality.

The distillate of illuminating oil, or kerosene, as we know it, if used just as it comes from the original still, has all the disadvantages which Kier's "carbon oil" presented, charring the wicks, giving off an unpleasant odor, and rapidly turning to a dark color after standing, all owing to the presence of various impurities. The illuminating "cut," therefore, is given the same sort of purification treatment as is applied to the naphtha. Testing and grading for sale then complete the last stages in the production of kerosene.

The manufacture of lubricating oils, and paraffin or wax complete the principal processes of refining. Some lubricating oils are produced by the processes known as sunning or reducing, depending on the evaporation of the lighter products either by exposing the crude in open tanks or by gently heating it with steam. This method of

treatment is said to have originated from the observation that certain oils spilled on the streams of the oil regions were thickened by evaporation, and became fit for lubricating purposes without further treatment. Experiments with different oils showed the possibility of making natural lubricators in this way from special grades of crude petroleum. So-called "sunned oils" and "reduced oils" are still to be found on the market, but by far the greater proportion of machine oils are products of distillation.

These refined lubricating oils come either from the process of "running to cylinder stock," or from the redistillation of the "wax slop" and of the tar left in the still after cracking for kerosene is completed. These oils, in one way or another, form the basis of all grades of machine oil from the very lightest "spindle oil" to the heaviest grease. The processes of treatment differ only in minor details from those used for the lighter oils. Different cuts are made, and these cuts, together with varying methods of purification, bleaching and filtering, determine the particular grade produced. In general, however, the redistillation of the "wax slop" cut yields the major portion of the light and especially high-grade lubricating oils, while the heavier grades come from the cylinder stock.

Paraffin was once regarded merely as a by-product of distillation, but it is now so widely used in industrial processes that in some refineries it is fully as valuable as any of the other products. Paraffin is obtained from the redistillation of either the residuum left in the tar process after cracking is completed, or from the "wax slop" cut in the cylinder-stock process. In either case the paraffin distillation is carried on in heavy steel stills at very high temperatures. The paraffin passes off in one long stream of distillate, the latter end of which may be almost pure wax. It then undergoes the same chemical purification as the other products, the only difference being that the agitator must be heated to prevent cooling and solidification of the wax. The subsequent treatment, however, is much more complicated, consisting of a variety of steps as follows: to a settling tank where the water is removed; to a chilling tank where ammonia machines cause it to

congeal and crystallize; to a filter press which forces out any oil remaining, and leaves only solid paraffin; to the melting tank to be converted into liquid paraffin again; to the bone-black filter where all color impurities are removed; and, finally, to the second chilling tank, where it is returned to the crystallized form ready for the hydraulic presses, which convert it into cakes for shipment.

From this description it appears that only two of the important products of petroleum are regularly obtained directly from the first distillation; these are the illuminating oils and the cylinder stock, and both of these have to receive additional treatment subsequently. All other products are the result of a second distillation and of chemical manipulations. The percentage of the different products obtained by refining varies immensely, depending both on the original character of the crude oil and on the special aims of the individual refiner. Illuminating oils run as high as seventy-five per cent. or eighty per cent., and as low as twenty per cent. to twenty-five per cent. Lubricating oils vary from nothing up to twenty per cent. or thirty per cent., and the residuum and waste may be as high as thirty per cent. of the whole volume of crude oil. The residuum, representing the compounds which cannot be vaporized by ordinary means, is not, however, all loss, because, whether pitch, coke, or asphalt, according to the character of the crude oil, various methods of treatment and utilization are devised. Practically nothing is lost except moisture, solid impurities, and the varying amounts of uncondensed gases. Even the water used in washing the distillates is sent to huge settling tanks to recover any oil which may have been included in it.

The most volatile of these distilled oils, the naphthas, are extremely inflammable liquids, the gases from which make violently explosive combinations when mixed with air. The presence of a very small percentage of the lighter naphtha oils in illuminating or lubricating oils is, therefore, a constant source of danger. If such oils are used explosions and fires are sure to occur. The danger is especially great in the case of naphthas present in kerosene, the most prolific cause of lamp accidents and fires in the

early days of the industry. Continued complaints about the "deadly kerosene," as it was frequently called, led to the establishment of certain legal standards which all illuminating oils must meet. It has consequently become customary to subject all the distilled oils to standard tests in order to insure a uniform quality of the product. Testing is now fully as important a part of the refining process as is distillation itself, since it is the only safeguard for the interests of both producer and consumer.

The lighter oils of the naphtha group are usually tested for gravity, odor and acid impurity. The gravity test is made with the usual Baumé hydrometer, and on the basis of this test the oils are graded for commercial purposes, as gasoline, naphtha, and benzine. The test for odors is made by simply saturating a cloth with the oil, as the oil evaporates from the cloth any foreign odors are readily detected. The presence of acid is revealed by testing with litmus paper, which immediately turns red if the acid has not been entirely removed. Benzines for special purposes, as in the manufacture of paints and varnishes, also have to be free from any of the heavier oils. The test in this case is made by soaking part of a sheet of paper in the benzine, if heavier oil, like kerosene, is present, a grease spot shows as the volatile benzine rapidly evaporates; otherwise the whole sheet of paper presents the same appearance.

The testing of kerosene oils is by far the most important of all, because the conditions under which it is used in ordinary lamps are especially favorable for the occurrence of explosions. Kerosene is tested for acid, sulphur, gravity, color, and what is known as the "fire test." Acid and gravity tests are the same as for naphthas. Color is, of course, determined by inspection, and furnishes the basis for division of the kerosene into the three grades common in this country: *water white*, which is colorless, and is the standard of American kerosene; *prime white*, of a faint yellow color; and *standard* or *standard white*, a pronounced yellow. In European countries other grades are recognized, as many as seven being commonly sold in Germany.

The fire tests, however, are the most significant since they determine the safe or unsafe character of the

kerosene and the legality of its sale. Two fire tests may be used, one of them called the "flash test," determining the temperature at which the oil will give off an inflammable vapor when heated artificially, or when exposed naturally to the air. The other, known as the "burning test," determines the temperature at which the oil will take fire and burn on the surface. The latter temperature is usually from ten to forty degrees higher than the "flashing point," and, since the gravest dangers are from the generation of explosive vapors, the flash test means most.

A great number of devices have been invented for making the flash test, the essential principle of each being a closed or open cup in which the oil is heated. A common form of tester consists of a cup holding about the same amount of oil as a medium-sized lamp, the cup being immersed in water and heated carefully by heating the water, on the same principle as cooking in a double boiler. The glass cover of the cup has a hole for a thermometer and another for inserting a match to ignite the vapor. Kerosene, to be safe for lighting purposes, should have a flashing point higher than any temperature which it is likely to reach under ordinary conditions. In most places a flashing point of 110° or higher is required by law. Testing, however, usually begins as soon as the thermometer shows the oil to have a temperature of about 85° or 90° , and continues at intervals of every degree or two until the insertion of the match causes the appearance of a bluish flame in the cup. As soon as this "flash" flame appears the reading of the thermometer indicates whether the oil is up to the required standard. Illuminating oils for special purposes such as headlight oil for locomotives, signal lamps, miners' lamps, and so on, frequently have to meet much higher requirements than for ordinary domestic use, but the testing process is the same.

Lubricating oils are subjected to three important tests, viscosity, fire test, and cold test, each, in a way, being of vital significance in determining the value of the oil. The first, if any, is perhaps the most important since viscosity is the most necessary quality of any lubricating fluid. The test may be made in innumerable ways, but all depend on

the principle of determining the length of time required for a given quantity of the oil to flow through a small opening. The temperature at which the test is made depends on the special use for which the individual oil is intended, ranging up as high as 212° in the case of cylinder oils for steam engines.

The fire test is necessary in the case of most machine and engine oils because the heat from friction might generate inflammable vapors if very volatile products were present. The cold test is also required to determine the temperature at which the oil would become thick and cloudy. This test is made by freezing the oil in a tube, and then as it melts, noting the temperature at which it begins to run. High-grade lubricating oils have to withstand a very wide range of temperatures; first quality cylinder oil, for example, must have a cold test as low as 55° , and it must not flash below 550° Fahrenheit.

All these tests must be made at the refinery for each lot of distillates before they can be approved, graded, and loaded for shipment to the consumer. If any distillate does not "prove up," it has to go back for further manipulation to remedy the defects, the success or failure of the tests depending largely on the skill of the stillman in making his cuts as the distillate passes through his separating box.

In spite of its many steps and intricate processes there is nothing picturesque or spectacular in petroleum refining, unless it is in the magnitude of the plant and the very obscurity of the many transformations going on everywhere yet entirely unseen. One refinery is essentially the same as every other save in size, and perhaps in a few minor details. At a hundred refineries from the Atlantic to the Pacific, and from the Lakes to the Gulf, the same story is repeated day after day and year after year, as the invisible stream of oil makes its journey step by step through the maze of pipes, stills, condensers, and agitators, leaving at every turn a part of its precious burden. On the one hand, the vast network of pipe lines binds the refinery to thousands of wells, scattered halfway across the continent.

On the other hand, the world-wide distributing system carries the multitude of refined products into the daily life of every class of humanity.

From *The Story of Oil* by W. S. Tower. (Copyright, 1909, by D. Appleton and Company, and reprinted by permission.)

STEAM RAILWAY BONDS

Bonds are simply certificates of value. They represent fractionally, material property such as houses, land, factory sites, railway stations, steam engines, steel rails, machinery, docks and terminals, etc., and also such intangible things as earning power. Corporations must operate upon borrowed money, just as a merchant does. The latter borrows from his bank for two, four, or six months, in order to finance his purchases; as security for his borrowings he gives to the bank his personal note. Sometimes he is required to give collateral security as well. Corporations borrow on a larger scale and for longer periods. The form of borrowing they employ is called a bond issue.

A bond is a written promise to repay a loan at a given date. The interest to be paid during the life of the loan is also specifically stated upon the face of the bond. The bond is secured by the pledge of some material thing, such as a railway property or a factory site. All these facts are minutely stated in a contract or mortgage, together with a detailed description of the property offered as security. This contract is deposited with some responsible person or banking institution, usually a trust company, who shall act as trustee for possible purchasers of the bond. Conservative companies issue their bonds only up to about seventy-five or eighty per cent. of the actual market value of the property pledged. This leaves a satisfactory margin of safety for the prospective bondholders. If the company fails to pay interest on the loan at the stated times, or the principal at maturity, the trustee is empowered by the clauses of the mortgage contract to sell the property and satisfy the claims of the bondholders both as to principal and as to interest. What remains after the satisfaction of the bondholders' claims goes to the stockholders.

Bonds are issued usually in denominations of \$1,000, but there are also many bonds for \$500 each, and some for \$100 each. Interest is ordinarily paid semi-annually, and little detachable checks, or slips, called coupons, representing the amount of interest due each half year, are attached to the bond. These should be cut off and presented at the office of the company for payment upon the agreed day. Such bonds are termed "coupon bonds." There are also what are known as "registered bonds." These do not possess the little checks or coupons, but show instead, upon the reverse side, blank spaces for the purchaser's signature. His name and address are at the same time registered upon the books of the company, together with the number of his bond. At interest periods the company's treasurer forwards him a check for the interest due. Registered bonds may not be sold without the written consent of the holder over his signature, or that of some person holding his power of attorney. For this reason the purchase and sale of registered bonds involve considerable detail and sometimes expense. Hence their market price is usually lower than coupon bonds of the same issue. The latter are readily negotiable by any holder, and require no form whatever. If a registered bond were stolen, it could not be disposed of by the thief, whereas the sale of a stolen coupon bond might be an easy matter. Savings banks and trust estates generally prefer registered bonds as investments because of their greater safety and their convenience in the matter of interest. Certain bonds may be issued in either coupon or registerable form at the option of the purchaser.

Railway bonds are issued in both coupon and registered form, and usually in \$1,000 pieces, but there are also many \$500 and a few \$100 bonds. Upon the exchanges, however, when one buys or sells a bond, unless specifically stated otherwise, a \$1,000 bond is meant. The bond issues of nearly all steam railways are listed and dealt in upon the exchanges of one or more of the great cities. Thus they have a wide and ready market. Because of this fact, they will be accepted anywhere by bankers as collateral for loans, where real estate mortgages and the bonds of

small industrial companies, known only in the locality in which the property mortgaged is situated, will ordinarily be refused because of their less ready negotiability.

Financial ingenuity has created many kinds of bonds and has tagged them with a great variety of names. In some instances the appellations are self-explanatory. Bond issues include: first, second, and third mortgages; extension, divisional, and refunding mortgages; general, consolidated, and unified mortgages; collateral trust mortgages; participating, convertible, and sinking fund mortgages; debenture bonds; and equipment and car trust bonds and notes.

When a railway line is projected, the bond issue which is sold to the investing public through the medium of the great investment banking houses, in order to obtain funds for construction, constitutes a first claim upon all the assets of the company, *i. e.*, stations, roadbeds, terminal properties, land grants, shops, and often upon cars and engines as well. As the country is developed and the road's business expands, it frequently becomes necessary to borrow further sums to be used for improvements necessitated by the heavier traffic, and for new working capital. A new bond issue is proposed, and a second mortgage is placed upon the property, which follows in its claim to assets and earnings, the first mortgage. The merchant conducts his business upon precisely similar principles, borrowing new working funds from time to time as business increases beyond the capacity of his original capital. The merchant, however, instead of issuing a mortgage, borrows upon his personal note for a short period, that note being secured by collateral deposited with the lender, or else by the implied pledge of his merchandise and other real and personal property.

It will be readily seen that, when the money obtained by the sale of the second mortgage bonds has been expended for betterments to the property and for superior transportation facilities, the value of the first mortgage bonds is materially enhanced. The latter now constitute no longer a speculative, but a real, investment security. The second mortgage, however, belongs to the speculative class, since

the road's capacity to carry this additional burden of debt has not as yet been tested.

Third mortgage bonds, as their title suggests, are issued against property already pledged to secure the first and second mortgages. Their claim upon earnings and assets follows the satisfaction of the two prior liens. Sometimes bonds are a first lien upon one portion of road, a second mortgage upon another, and constitute still a third claim upon yet another.

Where the territory lying beyond the terminus of a road reaches such a state of development that the road's management thinks it rich enough to be tapped, the road is extended. To finance its building, extension bonds are issued, and these bonds form a first lien upon the extension. A series of such extensions, whether they be continuations of the main line, or spurs running off at angles through adjacent communities, are spoken of as "divisions" and the mortgages sold to build them are first mortgages upon such divisions. Divisional and extensional bonds are, as a rule, not regarded as being as attractive as the direct liens upon the main line. The reason for this is that such extensions and spurs are dependent for their earning power upon the outlet afforded them by the main line, whereas the latter is a paying property independent of the business contributed by the divisional lines.

Refunding bonds are issued to redeem old outstanding bonds when they mature. The amount of a refunding mortgage may greatly exceed the issue that is to be redeemed, and frequently a portion is sold long before the old bonds come due. The funds accruing from such sale are to be used for various purposes which must be set forth in the mortgage. An amount sufficient to take up the old bonds is retained in the company's treasury until the latter fall due.

General, consolidated, and unified bonds are practically identical. Such mortgages are usually secured upon an entire property, subject to the right of prior line and divisional bonds, or upon several independent properties which have been brought together, "consolidated" or

“unified,” under the management and ownership of one parent corporation.

Collateral trust bonds are those issued for the purchase of some independent competing road, the stocks and bonds of which, or at least a sufficient amount of the latter to carry control to the purchasing company, are deposited with a trustee as collateral to secure the mortgage. The latter, therefore, is only an indirect lien upon the purchased property. It is often difficult to estimate the real worth or marketability of this collateral. Hence a very large proportion of collateral trust bonds may be regarded as approaching the border line of the speculative.

Participating bonds are rare. Besides forming a direct lien, first, second, or third, as the case may be, upon the property and receiving an agreed rate of interest, they are allowed to participate in the company's surplus earnings when the latter exceed a given amount.

Convertible bonds have of late years become a very popular form of issue. In the first place, they are a direct obligation of the issuing company. In addition, the mortgage contract or indenture, as it is termed, accords the holder the privilege of converting his bond into stock of the company at any given time, or at certain specified times within a given period. Take the case of the five per cent. convertible bonds of a certain railway. Suppose the investor purchases one of these bonds at par. He is assured of his five per cent. by the promise of a solvent and highly prosperous company. Since his bond is a direct obligation of the latter, it is not conceivable that in normal times its market price should decline very far below this point, five per cent. upon a safe investment being an equitable rate of income. But he has also the right to exchange the bond, dollar for dollar, for the company's common stock, paying six per cent. dividends. There is every reason to expect that such a six per cent. stock should, in ordinary seasons, bring a price far in excess of its par value.

Sinking fund mortgages contain a clause which provides for the setting aside, out of the earnings each year,

a certain sum to be applied to the annual or semi-annual purchase and retirement of so many bonds of that particular issue. The bonds are sometimes purchased at an agreed price, and sometimes are drawn by lot.

Debenture bonds are not secured by a mortgage, but are simply a long-time promise to pay. They resemble notes, and their value as an investment depends entirely upon the general credit of the issuing company.

Equipment and car trust bonds are secured by the pledge of the freight and passenger cars for the purchase of which they are sold. The agreement is usually drawn between the trustee, acting for the railway company, and the manufacturers and builders of the cars. The bonds are issued in series, so many maturing every six months. Under the terms of the contract the title to the cars, or actual ownership, remains with the trustee until all payments have been made. This is a very safe form of investment, and usually returns an excellent income.

Adapted from "Investing Money," by George Carey, in *The Outlook*.

THE METHOD OF SCIENTIFIC INVESTIGATION

The method of scientific investigation is nothing but the expression of the necessary mode of working of the human mind. It is simply the mode at which all phenomena are reasoned about, rendered precise and exact. There is no more difference, but there is just the same kind of difference, between the mental operations of a man of science and those of an ordinary person, as there is between the operations and methods of a baker or of a butcher weighing out his goods on common scales, and the operations of a chemist in performing a difficult and complex analysis by means of his balance and finely-graduated weights. It is not that the action of the scales in the one case, and the balance in the other, differ in the principles of their construction or manner of working; but the beam of one is set on an infinitely finer axis than the other, and, of course, turns by the addition of a much smaller weight.

You will understand this better, perhaps, if I give you some familiar example. You have all heard it repeated, I

dare say, that men of science work by means of induction and deduction, and that by the help of these operations, they, in a sort of sense, wring from nature certain other things, which are called natural laws, and causes, and that out of these, by some cunning skill of their own, they build up hypotheses and theories. And it is imagined by many that the operations of the common mind can be, by no means, compared with these processes, and that they have to be acquired by a sort of special apprenticeship to the craft. To hear all these large words, you would think that the mind of a man of science must be constituted differently from that of his fellow-men; but if you will not be frightened by terms, you will discover that you are quite wrong, and that all these terrible apparatus are being used by yourselves every day and every hour of your lives.

There is a well-known incident in one of Molière's plays, where the author makes the hero express unbounded delight on being told that he had been talking prose during the whole of his life. In the same way, I trust, that you will take comfort, and be delighted with yourselves, on the discovery that you have been acting on the principles of inductive and deductive philosophy during the same period. Probably there is not one here who has not in the course of the day had occasion to set in motion a complex train of reasoning, of the very same kind, though differing of course in degree, as that which a scientific man goes through in tracing the causes of natural phenomena.

A very trivial circumstance will serve to exemplify this. Suppose you go into a fruiterer's shop, wanting an apple—you take up one, and, on biting it, you find it is sour; you look at it, and see that it is hard and green. You take up another one, and that too is hard, green, and sour. The shopman offers you a third; but before biting it, you examine it, and find that it is hard and green, and you immediately say that you will not have it, as it must be sour, like those that you have already tried.

Nothing can be more simple than that, you think; but if you will take the trouble to analyze and trace out into its logical elements what has been done by the mind, you

will be greatly surprised. In the first place, you have performed the operation of induction. You found that, in two experiences, hardness and greenness in apples went together with sourness. It was so in the first case, and it was confirmed by the second. True, it is a very small basis, but still it is enough to make an induction from; you generalize the facts, and you expect to find sourness in apples where you get hardness and greenness. You found upon that a general law, that all hard and green apples are sour; and that, so far as it goes, is a perfect induction. Well, having got your natural law in this way, when you are offered another apple which you find is hard and green, you say, "All hard and green apples are sour; this apple is hard and green, therefore this apple is sour." That train of reasoning is what logicians call a syllogism, and has all its various parts and terms—its major premise, its minor premise, and its conclusion. And, by the help of further reasoning, which, if drawn out, would have to be exhibited in two or three other syllogisms, you arrive at your final determination, "I will not have that apple." So that, you see, you have, in the first place, established a law by induction, and upon that you have founded a deduction, and reasoned out the special conclusion of the particular case. Well now, suppose, having got your law, that at some time afterwards, you are discussing the qualities of apples with a friend: you will say to him, "It is a very curious thing—but I find that all hard and green apples are sour!" Your friend says to you, "But how do you know that?" You at once reply, "Oh, because I have tried them over and over again, and have always found them to be so." Well, if we were talking science instead of common sense, we should call that an experimental verification. And, if still opposed, you go further, and say, "I have heard from the people in Somersetshire and Devonshire, where a large number of apples are grown, that they have observed the same thing. It is also found to be the case in Normandy, and in North America. In short, I find it to be the universal experience of mankind wherever attention has been directed to the subject." Whereupon, your friend, unless he is a very unreason-

able man, agrees with you, and is convinced that you are quite right in the conclusion you have drawn. He believes, although perhaps he does not know he believes it, that the more extensive verifications are that the more frequently experiments have been made, and the results of the same kind arrived at—that the more varied the conditions under which the same results are attained, the more certain is the ultimate conclusion, and he disputes the question no further. He sees that the experiment has been tried under all sorts of conditions, as to time, place, and people, with the same result; and he says with you, therefore, that the law you have laid down must be a good one, and he must believe it.

In science we do the same thing; the philosopher exercises precisely the same faculties, though in a much more delicate manner. In scientific inquiry it becomes a matter of duty to expose a supposed law to every possible kind of verification, and to take care, moreover, that this is done intentionally, and not left to a mere accident, as in the case of the apples. And in science, as in common life, our confidence in a law is in exact proportion to the absence of variation in the result of our experimental verifications. For instance, if you let go your grasp of an article you may have in your hand, it will immediately fall to the ground. That is a very common verification of one of the best established laws of nature—that of gravitation. The method by which men of science establish the existence of that law is exactly the same as that by which we have established the trivial proposition about the sourness of hard and green apples. But we believe it in such an extensive, thorough, and unhesitating manner because the universal experience of mankind verifies it, and we can verify it ourselves at any time; and that is the strongest possible foundation on which any natural law can rest.

So much then, by way of proof that the method of establishing laws in science is exactly the same as that pursued in common life. Let us now turn to another matter (though really it is but another phase of the same question) and that is, the method by which, from the

relations of certain phenomena, we prove that some stand in the position of causes towards the others.

I want to put the case clearly before you, and I will therefore show you what I mean by another familiar example. I will suppose that one of you, on coming down in the morning to the parlor of your house, finds that a teapot and some spoons which had been left in the room on the previous evening are gone—the window is open, and you observe the mark of a dirty hand on the window frame, and perhaps, in addition to that, you notice the impress of a hob-nailed shoe on the gravel outside. All these phenomena have struck your attention instantly, and before two seconds have passed you say, “Oh, somebody has broken open the window, entered the room, and run off with the spoons and the teapot!” That speech is out of your mouth in a moment. And you will probably add, “I know there has; I am quite sure of it!” You mean to say exactly what you know; but in reality you are giving expression to what is, in all essential particulars, an hypothesis. You do not *know* it at all; it is nothing but an hypothesis rapidly framed in your own mind! And, it is an hypothesis founded on a long train of inductions and deductions.

What are those inductions and deductions, and how have you got at this hypothesis? You have observed, in the first place, that the window is open; but by a train of reasoning involving many inductions and deductions, you have probably arrived long before at the general law—and a very good one it is—that windows do not open of themselves; and you therefore conclude that something has opened the window. A second general law that you have arrived at in the same way is, that teapots and spoons do not go out of a window spontaneously, and you are satisfied that, as they are not now where you left them, they have been removed. In the third place, you look at the marks on the window sill, and the shoe marks outside, and you say that in all previous experience the former kind of mark has never been produced by anything else but the hand of a human being; and the same experience shows that no other animal but man at present wears shoes with

hob-nails in them such as would produce the marks in the gravel. I do not know, even if we could discover any of those "missing links" that are talked about, that they would help us to any other conclusion! At any rate the law which states our present experience is strong enough for my present purpose. You next reach the conclusion, that as these kinds of marks have not been left by any other animals than men, or are liable to be formed in any other way than by a man's hand and shoe, the marks in question have been formed by a man in that way. You have, further, a general law, founded on observation and experience, and that, too, is, I am sorry to say, a very universal and unimpeachable one—that some men are thieves; and you assume at once from all these premises—and that is what constitutes your hypothesis—that the man who made the marks outside and on the window sill, opened the window, got into the room, and stole your teapot and spoons. You have now arrived at a *Vera Causa*; you have assumed a cause which it is plain is competent to produce all the phenomena you have observed. You can explain all these phenomena only by the hypothesis of a thief. But that is a hypothetical conclusion, of the justice of which you have no absolute proof at all; it is only rendered highly probable by a series of inductive and deductive reasonings.

I suppose your first action, assuming that you are a man of ordinary common sense, and that you have established this hypothesis to your own satisfaction, will very likely be to go off for the police, and set them on the track of the burglar, with the view to the recovery of your property. But just as you are starting with this object, some person comes in, and on learning what you are about, says, "My good friend, you are going on a great deal too fast. How do you know that the man who really made the marks took the spoons? It might have been a monkey that took them, and the man may have merely looked in afterwards." You would probably reply, "Well, that is all very well, but you see it is contrary to all experience of the way teapots and spoons are abstracted; so that, at any rate, your hypothesis is less probable than mine." While

you are talking the thing over in this way, another friend arrives, one of that good kind of people that I was talking of a little while ago. And he might say, "Oh, my dear sir, you are certainly going on a great deal too fast. You are most presumptuous. You admit that all these occurrences took place when you were fast asleep, at a time when you could not possibly have known anything about what was taking place. How do you know that the laws of nature are not suspended during the night? It may be that there has been some kind of supernatural interference in this case." In point of fact, he declares that your hypothesis is one of which you cannot at all demonstrate the truth, and that you are by no means sure that the laws of nature are the same when you are asleep as when you are awake.

Well, now, you cannot at the moment answer that kind of reasoning. You feel that your worthy friend has you somewhat at a disadvantage. You will feel perfectly convinced in your own mind, however, that you are quite right, and you say to him, "My good friend, I can only be guided by the natural probabilities of the case, and if you will be kind enough to stand aside and permit me to pass, I will go and fetch the police." Well, we will suppose that your journey is successful, and that by good luck you meet with a policeman; that eventually the burglar is found with your property on his person, and the marks correspond to his hand and to his boots. Probably any jury would consider those facts a very good experimental verification of your hypothesis, touching the cause of the abnormal phenomena observed in your parlor, and would act accordingly.

Now, in this supposititious case, I have taken phenomena of a very common kind, in order that you might see what are the different steps in an ordinary process of reasoning, if you will only take the trouble to analyze it carefully. All the operations I have described, you will see, are involved in the mind of any man of sense in leading him to a conclusion as to the course he should take in order to make good a robbery and punish the offender. I say that you are led, in that case, to your conclusion by exactly the same train of reasoning as that which a man of science

pursues when he is endeavoring to discover the origin and laws of the most occult phenomena. The process is, and always must be, the same; and precisely the same mode of reasoning was employed by Newton and Laplace in their endeavors to discover and define the causes of the movements of the heavenly bodies, as you, with your own common sense, would employ to detect a burglar. The only difference is, that the nature of the inquiry being more abstruse, every step has to be most carefully watched, so that there may not be a single crack or flaw in your hypothesis. A flaw or crack in many of the hypotheses of daily life may be of little or no moment as affecting the general correctness of the conclusions at which we may arrive; but in a scientific inquiry a fallacy, great or small, is always of importance, and is sure to be in the long run constantly productive of mischievous, if not fatal results.

Do not allow yourselves to be misled by the common notion that an hypothesis is untrustworthy simply because it is an hypothesis. It is often urged, in respect to some scientific conclusion, that, after all, it is only an hypothesis. But what more have we to guide us in nine-tenths of the most important affairs of daily life than hypotheses, and often very ill-based ones? So that in science, where the evidence of an hypothesis is subjected to the most rigid examination, we may rightly pursue the same course. You may have hypotheses and hypotheses. A man may say, if he likes, that the moon is made of green cheese: that is an hypothesis. But another man, who has devoted a great deal of time and attention to the subject, and availed himself of the most powerful telescopes and the results of the observations of others, declares that in his opinion it is probably composed of materials very similar to those of which our own earth is made up: and that is also only an hypothesis. But I need not tell you that there is an enormous difference in the value of the two hypotheses. That one which is based on sound scientific knowledge is sure to have a corresponding value; and that which is a mere hasty random guess is likely to have but little value. Every great step in our progress in discovering causes

has been made in exactly the same way as that which I have detailed to you. A person observing the occurrence of certain facts and phenomena asks, naturally enough, what process, what kind of operation known to occur in nature applied to the particular case, will unravel and explain the mystery? Hence you have the scientific hypothesis; and its value will be proportionate to the care and completeness with which its basis has been tested and verified. It is in these matters as in the commonest affairs of practical life: the guess of the fool will be folly, while the guess of the wise man will contain wisdom. In all cases, you see that the value of the result depends on the patience and faithfulness with which the investigator applies to his hypothesis every possible kind of verification.

T. H. Huxley: Six Lectures to Workingmen on the Phenomena of Organic Nature.

CORPORATIONS AND THE NATION

The Nation has no peculiar relation to corporations created by the States. It can deal with them only as it can deal with unincorporated associations, partnerships and individuals. Incorporation gives a privilege. The power which gives it may reserve the right to regulate its enjoyment, that is, the conduct of the association so privileged. In the nature of things, such right can be reserved only in the grant of the privilege and only by the grantor. The fact that an association of men is incorporated by one State cannot be made the basis of regulation by any other power. Incorporation under the laws of one or more States of the Union, gives no basis for control or regulation by the United States. The basis for Federal action must be found outside of the fact of such incorporation in something which, regardless of incorporation, brings the association within the field of Federal jurisdiction, under the provisions of the Constitution. State incorporation gives neither a ground for, nor a shield against, Federal interference.

If a partnership runs a stage between two villages in

Vermont, its business being confined to that State, even the most advanced advocate of centralization will admit that its business cannot be regulated by Congress. If the partnership is changed into a corporation, or, in other words, if the same association of individuals is incorporated by the State of Vermont, the business being limited as before, the corporation, equally with the previous partnership, is beyond the reach of congressional regulation. The power of Congress is unaffected by incorporation.

Substitute for the two villages in Vermont, two villages, one of which is in Vermont, and the other across the Connecticut River, in New Hampshire, so that the business is interstate transportation. Then such business undoubtedly may be regulated by Congress under its power to regulate interstate commerce. And this is equally so while the individuals who carry it on remain a mere partnership and after they have become a corporation. Regulation may be applied to the business because of its character. The legal character of the association, the fact that it is or is not incorporated, in no way affects the question.

Suppose a further change is made, and the business of the association is both carriage between two villages in Vermont and carriage between two villages one in Vermont and one in New Hampshire. Business of the former kind is outside of the power of Federal regulation; business of the latter kind is within such power. The one kind of business may and the other may not be regulated by Congress. The association generally is not subject to such regulation, but only the interstate business which it does. The fact that the same body of men carry on both kinds of business cannot extend the power of Congress; and the power is precisely the same, whether they are associated as a partnership or as a State corporation. That part of the business which is within the definition of interstate commerce, is subject to regulation under the powers referred to; the rest of the business is not. The association may be regulated with respect to its interstate business, but only with respect to such business. Whether it is incorporated or not, whatever it does is free from, or

subject to, Federal regulation, according as what it does is without or within the field of interstate commerce.

The Interstate Commerce Act in no sense attempts to regulate corporations; it regulates commerce only. It has lately been extended so as to cover express business. Some of the express companies are incorporated; some of the important ones are not.

The Anti-Trust Act of 1890, does not mention corporations, except in declaring that the word "person" as therein used, includes "corporations." It prohibits certain doings—if the word "certain" may be used, though it is still uncertain what the prohibited doings are. It applies whether the doers are corporations or natural persons. It is the character of the business, not the character of those who do it, which gives to Congress the right to regulate it; and is to be considered in any proceeding under the Act.

When individuals are more frequently prosecuted under these acts, it will be more generally realized that they are not based upon any peculiar relation of the Nation to corporations, but upon the power of Congress to regulate interstate and foreign commerce by whomsoever carried on.

In the proposals for Federal regulation of corporations, it is sometimes urged that corporations are peculiarly subject to State regulations, because of the franchises which they enjoy. The State by which a franchise is granted, may regulate the use of such franchises, if this right is reserved in the grant. But no other sovereignty can base a right of regulation upon such grant or such reservation therein. Whether a corporation enjoys only the franchise of corporate being—as is true of all industrial corporations—or enjoys, in addition to such franchise, a prerogative franchise such as that of maintaining and operating a railroad, the fact that it enjoys such franchise or franchises by grant from one or more of the States, gives no basis whatever for regulation of its business by the Federal Government.

With reference to the Federal Government then, corporations created by the States, stand upon the same footing as natural persons; if their business may be

regulated, it is because of the character of the business, because such business—by whomsoever it may be carried on—is of the kind which is subjected to Federal regulation by the Constitution.

All this is quite obvious; but the obvious is often overlooked. Argument is unnecessary. Reference to authorities would be a waste of effort. It needs only to be pointed out. That it is overlooked is shown by much of the talk upon many legislative suggestions which are heard in these days.

The conclusions from what has been pointed out are both restrictive and expansive. Limitations are seen to lie in the way of some legislative measures proposed. But on the other hand, it equally appears that some proposals should be broadened. If there is any reason for any suggested form of regulation as applied to business done by corporations, there must be the same reason for regulation of like business done by individuals, partnerships and unincorporated associations. Since the power of the Nation depends in no way upon incorporation, incorporation neither extends nor limits the power. Since it is the character of the business and not the legal character of the agency by which it is done which gives Congress its right of regulation, the legal character of the agency does not limit the power of Congress in its regulation of the business. Nor does it appear that there can be any difference in expediency, whether the agency is incorporated or not. The regulations which seem wise with respect to the business should not, therefore, be limited in their application to incorporated bodies. They should be general—as are the regulations of the Anti-Trust Act and the Interstate Commerce Act—applying to the doings of individuals and unincorporated associations in like manner as to those of corporations. And the propriety of their enactment should be tested by the thought that they must, in reason, be made so to apply.

There are doubtless those who think—without much thinking—that to draw the line in such matters between corporations and agencies unincorporated, is simply to distinguish between things large and small. But this is

a mistake. A partnership which becomes incorporate gains nothing in size or power. On the other hand, there are associations unincorporated which are larger and stronger than all but the largest corporations. Several important combinations have been organized lately by mere agreement, and the express companies give examples of association on a large scale without incorporation. If regulations are to be adopted as to any business, there would seem to be no reason why persons doing such business as individuals, or in unincorporated associations, should find themselves outside of their reach. Indeed, it would seem that incorporation cannot properly be made a basis of differentiation or of classification in any enactment by the Nation, unless it would cut free from the rule of equality of burden which is imposed upon the States by the Federal Constitution.

Thomas Thacher, in the *Yale Law Journal*.

WHAT KNOWLEDGE IS OF MOST WORTH

It has been truly remarked that, in order of time, decoration precedes dress. Among people who submit to great physical suffering that they may have themselves handsomely tattooed, extremes of temperature are borne with but little attempt at mitigation. Humboldt tells us that an Orinoco Indian, though quite regardless of bodily comfort, will yet labor for a fortnight to purchase pigment wherewith to make himself admired; and that the same woman who would not hesitate to leave her hut without a fragment of clothing on, would not dare to commit such a breach of decorum as to go out unpainted. Voyagers uniformly find that colored beads and trinkets are much more prized by wild tribes than are calicoes or broadcloths. And the anecdotes we have of the ways in which, when shirts and coats are given, they turn them to some ludicrous display, show how completely the idea of ornament predominates over that of use. Nay, there are still more extreme illustrations: witness the fact narrated by Capt. Speke of his African attendants, who strutted about in their goat-skin mantles

when the weather was fine, but when it was wet, took them off, folded them up, and went about naked, shivering in the rain! Indeed, the facts of aboriginal life seem to indicate that dress is developed out of decorations. And when we remember that even among ourselves most think more about the fineness of the fabric than its warmth, and more about the cut than the convenience—when we see that the function is still in great measure subordinated to the appearance—we have further reason for inferring such an origin.

It is not a little curious that the like relations hold with the mind. Among mental as among bodily acquisitions, the ornamental comes before the useful. Not only in times past, but almost as much in our own era, that knowledge which conduces to personal well-being has been postponed to that which brings applause. In the Greek schools, music, poetry, rhetoric, and a philosophy which, until Socrates taught, had but little bearing upon action, were the dominant subjects; while knowledge aiding the arts of life had a very subordinate place. And in our own universities and schools at the present moment the like antithesis holds. We are guilty of something like a platitude when we say that throughout his after-career a boy, in nine cases out of ten, applies his Latin and Greek to no practical purposes. The remark is trite that in his shop, or his office, in managing his estate or his family, in playing his part as director of a bank or a railway, he is very little aided by this knowledge he took so many years to acquire—so little, that generally the greater part of it drops out of his memory; and if he occasionally vents a Latin quotation, or alludes to some Greek myth, it is less to throw light on the topic in hand than for the sake of effect. If we inquire what is the real motive for giving boys a classical education, we find it to be simply conformity to public opinion. Men dress their children's minds as they do their bodies, in the prevailing fashion. As the Orinoco Indian puts on his paint before leaving his hut, not with a view to any direct benefit, but because he would be ashamed to be seen without it; so, a boy's drilling in Latin and Greek is insisted on, not because of

their intrinsic value, but that he may not be disgraced by being found ignorant of them—that he may have “the education of a gentleman”—the badge marking a certain social position, and bringing a consequent respect.

This parallel is still more clearly displayed in the case of the other sex. In the treatment of both mind and body, the decorative element has continued to predominate in a greater degree among women than among men. Originally, personal adornment occupied the attention of both sexes equally. In these latter days of civilization, however, we see that in the dress of men the regard for appearance has in a considerable degree yielded to the regard for comfort; while in their education the useful has of late been trenching on the ornamental. In neither direction has this change gone so far with women. The wearing of ear-rings, finger-rings, bracelets; the elaborate dressings of the hair; the still occasional use of paint; the immense labor bestowed in making habiliments sufficiently attractive; and the great discomfort that will be submitted to for the sake of conformity; show how greatly in the attiring of women, the desire of approbation overrides the desire for warmth and convenience. And similarly in their education, the immense preponderance of “accomplishments” proves how here, too, use is subordinated to display. Dancing, deportment, the piano, singing, drawing—what a large space do these occupy! If you ask why Italian and German are learnt, you will find that under all the sham reasons given, the real reason is, that a knowledge of those tongues is thought lady-like. It is not that the books written in them may be utilized, which they scarcely ever are; but that Italian and German songs may be sung, and that the extent of attainment may bring whispered admiration. The births, deaths, and marriages of kings, and other like historic trivialities, are committed to memory, not because of any direct benefits that can possibly result from knowing them; but because society considers them parts of a good education—because the absence of such knowledge may bring the contempt of others. When we have named reading, writing, spelling, grammar, arithmetic, and sew-

ing, we have named about all the things a girl is taught with a view to their direct uses in life; and even some of these have more reference to the good opinion of others than to immediate personal welfare.

Thoroughly to realize the truth that with the mind as with the body the ornamental precedes the useful, it is needful to glance at its rationale. This lies in the fact that, from the far past down even to the present, social needs have subordinated individual needs, and that the chief social need has been the control of individuals. It is not, as we commonly suppose, that there are no governments but those of monarchs, and parliaments, and constituted authorities. These acknowledged governments are supplemented by other unacknowledged ones, that grow up in all circles, in which every man or woman strives to be king or queen or lesser dignitary. To get above some and be revered by them, and to propitiate those who are above us, is the universal struggle in which the chief energies of life are expended. By the accumulation of wealth, by style of living, by beauty of dress, by display of knowledge or intellect, each tries to subjugate others; and so aids in weaving that ramified network of restraints by which society is kept in order. It is not the savage chief only, who, in formidable war-paint, with scalps at his belt, aims to strike awe into his inferiors; it is not only the belle who, by elaborate toilet, polished manners, and numerous accomplishments, strives to "make conquests;" but the scholar, the historian, the philosopher, use their acquirements to the same end. We are none of us content with quietly unfolding our own individualities to the full in all directions; but have a restless craving to impress our individualities upon others, and in some way subordinate them. And this it is which determines the character of our education. Not what knowledge is of most real worth, is the consideration; but what will bring most applause, honor, respect—what will most conduce to social position and influence—what will be most imposing. As, throughout life, not what we are, but what we shall be thought, is the question; so in education, the question is, not the intrinsic value of

knowledge, so much as its extrinsic effects on others. And this being our dominant idea, direct utility is scarcely more regarded than by the barbarian when filing his teeth and staining his nails.

If there needs any further evidence of the rude, undeveloped character of our education, we have it in the fact that the comparative worths of different kinds of knowledge have been as yet scarcely even discussed—much less discussed in a methodic way with definite results. Not only is it that no standard of relative values has yet been agreed upon; but the existence of any such standard has not been conceived in any clear manner. And not only is it that the existence of any such standard has not been clearly conceived; but the need for it seems to have been scarcely even felt. Men read books on this topic, and attend lectures on that; decide that their children shall be instructed in these branches of knowledge, and shall not be instructed in those; and all under the guidance of mere custom, or liking, or prejudice; without ever considering the enormous importance of determining in some rational way what things are really most worth learning. It is true that in all circles we have occasional remarks on the importance of this or the other order of information. But whether the degree of its importance justifies the expenditure of the time needed to acquire it; and whether there are not things of more importance to which the time might be better devoted; are queries which, if raised at all, are disposed of quite summarily, according to personal predilections. It is true, also, that from time to time, we hear revived the standing controversy respecting the comparative merits of classics and mathematics. Not only, however, is this controversy carried on in an empirical manner, with no reference to an ascertained criterion; but the question at issue is totally insignificant when compared with the general question of which it is part. To suppose that deciding whether a mathematical or a classical education is the best, is deciding what is the proper *curriculum*, is much the same thing as to suppose

that the whole of dietetics lies in determining whether or not bread is more nutritive than potatoes!

The question which we contend is of such transcendent moment, is, not whether such or such knowledge is of worth, but what is its *relative* worth? When they have named certain advantages which a given course of study has secured them, persons are apt to assume that they have justified themselves: quite forgetting that the adequateness of the advantages is the point to be judged. There is, perhaps, not a subject to which men devote attention that has not *some* value. A year diligently spent in getting up heraldry, would very possibly give a little further insight into ancient manners and morals, and into the origin of names. Any one who should learn the distances between all the towns in England, might, in the course of his life, find one or two of the thousand facts he had acquired of some slight service when arranging a journey. Gathering together all the small gossip of a county, profitless occupation as it would be, might yet occasionally help to establish some useful fact—say, a good example of hereditary transmission. But in these cases, every one would admit that there was no proportion between the required labor and the probable benefit. No one would tolerate the proposal to devote some years of a boy's time to getting such information, at the cost of much more valuable information which he might else have got. And if here the test of relative value is appealed to and held conclusive, then should it be appealed to and held conclusive throughout. Had we time to master all subjects we need not be particular. To quote the old song :—

Could a man be secure
That his days would endure
As of old for a thousand long years,
What things might he know:
What deeds might he do!
And all without hurry or care.

“But we that have but span-long lives” must ever bear in mind our limited time for acquisition. And remembering how narrowly this time is limited, not only by the shortness of life, but also still more by the business of life, we ought to be especially solicitous to employ what

time we have to the greatest advantage. Before devoting years to some subject which fashion or fancy suggests, it is surely wise to weigh with great care the worth of the results, as compared with the worth of various alternative results which the same years might bring if otherwise applied.

In education, then, this is the question of questions, which it is high time we discussed in some methodic way. The first in importance, though the last to be considered, is the problem—how to decide among the conflicting claims of various subjects on our attention. Before there can be a rational *curriculum*, we must settle which things it most concerns us to know; or to use a word of Bacon's now unfortunately obsolete—we must determine the relative values of knowledges.

To this end, a measure of value is the first requisite. And happily, respecting the true measure of value, as expressed in general terms, there can be no dispute. Every one in contending for the worth of any particular order of information, does so by showing its bearing upon some part of life. In reply to the question, "Of what use is it?" the mathematician, linguist, naturalist, or philosopher, explains the way in which his learning beneficially influences action—saves from evil or secures good—conduces to happiness. When the teacher of writing has pointed out how great an aid writing is to success in business—that is, to the obtainment of sustenance—that is, to satisfactory living; he is held to have proved his case. And when the collector of dead facts (say a numismatist) fails to make clear any appreciable effects which these facts can produce on human welfare, he is obliged to admit that they are comparatively valueless. All then, either directly or by implication, appeal to this as the ultimate test.

How to live?—that is the essential question for us. Not how to live in the mere material sense only, but in the widest sense. The general problem which comprehends every special problem is—the right ruling of conduct in all directions under all circumstances. In what way to treat the body; in what way to treat the mind; in what way to manage our affairs; in what way to bring

up a family; in what way to behave as a citizen; in what way to utilize all those sources of happiness which nature supplies—how to use all our faculties to the greatest advantage to ourselves and others—how to live completely? And this being the great thing needful for us to learn, is, by consequence, the great thing which education has to teach. To prepare us for complete living is the function which education has to discharge; and the only rational mode of judging of any educational course is, to judge in what degree it discharges such function.

This test, never used in its entirety, but rarely even partially used, and used then in a vague, half-conscious way, has to be applied consciously, methodically, and throughout all cases. It behooves us to set before ourselves, and ever to keep clearly in view, complete living as the end to be achieved; so that in bringing up our children we may choose subjects and methods of instruction, with deliberate reference to this end. Not only ought we to cease from the mere unthinking adoption of the current fashion in education, which has no better warrant than any other fashion; but we must also rise above that rude, empirical style of judging displayed by those more intelligent people who do bestow some care in overseeing the cultivation of their children's minds. It must not suffice simply to *think* that such or such information will be useful in after life, or that this kind of knowledge is of more practical value than that; but we must seek out some process of estimating their respective values, so that as far as possible we may positively *know* which are most deserving of attention.

Doubtless the task is difficult—perhaps never to be more than approximately achieved. But, considering the vastness of the interests at stake, its difficulty is no reason for pusillanimously passing it by; but rather for devoting every energy to its mastery. And if we only proceed systematically, we may very soon get at results of no small moment.

Our first step must obviously be to classify, in the order of their importance, the leading kinds of activity which constitute human life. They may be naturally arranged

into:—1. Those activities which directly minister to self-preservation; 2. Those activities which, by securing the necessities of life, indirectly minister to self-preservation; 3. Those activities which have for their end the rearing and discipline of offspring; 4. Those activities which are involved in the maintenance of proper social and political relations; 5. Those miscellaneous activities which make up the leisure part of life, devoted to the gratification of the tastes and feelings.

That these stand in something like their true order of subordination, it needs no long consideration to show. The actions and precautions by which, from moment to moment, we secure personal safety, must clearly take precedence of all others. Could there be a man, ignorant as an infant of all surrounding objects and movements, or how to guide himself among them, he would pretty certainly lose his life the first time he went into the street; notwithstanding any amount of learning he might have on other matters. And as entire ignorance in all other directions would be less promptly fatal than entire ignorance in this direction, it must be admitted that knowledge immediately conducive to self-preservation is of primary importance.

That next after direct self-preservation comes the indirect self-preservation which consists in acquiring the means of living, none will question. That a man's industrial functions must be considered before his parental ones, is manifest from the fact that, speaking generally, the discharge of the parental functions is made possible only by the previous discharge of the industrial ones. The power of self-maintenance necessarily preceding the power of maintaining offspring, it follows that knowledge needful for self-maintenance has stronger claims than knowledge needful for family welfare—is second in value to none save knowledge needful for immediate self-preservation.

As the family comes before the State in order of time—as the bringing up of children is possible before the State exists, or when it has ceased to be, whereas the State is rendered possible only by the bringing up of children; it

follows that the duties of the parent demand closer attention than those of the citizen. Or, to use a further argument—since the goodness of a society ultimately depends on the nature of its citizens; and since the nature of its citizens is more modifiable by early training than by anything else; we must conclude that the welfare of the family underlies the welfare of society. And hence knowledge directly conducing to the first, must take precedence of knowledge directly conducing to the last.

Those various forms of pleasurable occupation which fill up the leisure left by graver occupations—the enjoyments of music, poetry, painting, etc.—manifestly imply a pre-existing society. Not only is a considerable development of them impossible without a long-established social union; but their very subject-matter consists in great part of social sentiments and sympathies. Not only does society supply the conditions to their growth; but also the ideas and sentiments they express. And, consequently, that part of human conduct which constitutes good citizenship is of more moment than that which goes out in accomplishments or exercise of the tastes; and, in education, preparation for the one must rank before preparation for the other.

Such, then, we repeat, is something like the rational order of subordination:—That education which prepares for direct self-preservation; that which prepares for indirect self-preservation; that which prepares for parenthood; that which prepares for citizenship; that which prepares for the miscellaneous refinements of life. We do not mean to say that these divisions are definitely separable. We do not deny that they are intricately entangled with each other in such way that there can be no training for any that is not in some measure a training for all. Nor do we question that of each division there are portions more important than certain portions of the preceding divisions; that, for instance, a man of much skill in business but little other faculty, may fall further below the standard of complete living than one of but moderate power of acquiring money but great judgment as a parent; or that exhaustive information bearing on right

social action, joined with entire want of general culture in literature and the fine arts, is less desirable than a more moderate share of the one joined with some of the other. But, after making all qualifications, there still remain these broadly-marked divisions; and it still continues substantially true that these divisions subordinate one another in the foregoing order, because the corresponding divisions of life make one another *possible* in that order.

Of course the ideal of education is—complete preparation in all these divisions. But failing this ideal, as in our phase of civilization every one must do more or less, the aim should be to maintain *a due proportion* between the degrees of preparation in each. Not exhaustive cultivation in any one, supremely important though it may be—not even an exclusive attention to the two, three, or four divisions of greatest importance; but an attention to all,—greatest where the value is greatest, less where the value is less, least where the value is least. For the average man (not to forget the cases in which peculiar aptitude for some one department of knowledge rightly makes that one the bread-winning occupation)—for the average man, we say, the desideratum is, a training that approaches nearest to perfection in the things which most subserve complete living, and falls more and more below perfection in the things that have more and more remote bearings on complete living.

In regulating education by this standard, there are some general considerations that should be ever present to us. The worth of any kind of culture, as aiding complete living, may be either necessary or more or less contingent. There is knowledge of intrinsic value; knowledge of quasi-intrinsic value and knowledge of conventional value. Such facts as that sensations of numbness and tingling commonly precede paralysis, that the resistance of water to a body moving through it varies as the square of the velocity, that chlorine is a disinfectant—these, and the truths of science in general, are of intrinsic value: they will bear on human conduct ten thousand years hence as they do now. The extra knowledge of our own language, which is given by an acquaintance with Latin and Greek,

may be considered to have a value that is quasi-intrinsic; it must exist for us and for other races whose languages owe much to these sources; but will last only as long as our languages last. While that kind of information which, in our schools, usurps the name History—the mere tissue of names and dates and dead unmeaning events—has a conventional value only; it has not the remotest bearing upon any of our actions; and is of use only for the avoidance of those unpleasant criticisms which current opinion passes upon its absence. Of course, as those facts which concern all mankind throughout all time must be held of greater moment than those which concern only a portion of them during a limited era, and of far greater moment than those which concern only a portion of them during the continuance of a fashion; it follows that in a rational estimate, knowledge of intrinsic worth must, other things equal, take precedence of knowledge that is of quasi-intrinsic or conventional worth.

One further preliminary. Acquirement of every kind has two values—value as *knowledge* and value as *discipline*. Besides its use for guidance in conduct, the acquisition of each order of facts has also its use as mental exercise; and its effects as a preparative for complete living have to be considered under both these heads.

These, then, are the general ideas with which we must set out in discussing a *curriculum*:—Life as divided into several kinds of activity of successively decreasing importance; the worth of each order of facts as regulating these several kinds of activity, intrinsically, quasi-intrinsically, and conventionally; and their regulative influences estimated both as knowledge and discipline.

Happily, that all-important part of education which goes to secure direct self-preservation is in great part already provided for. Too momentous to be left to our blundering Nature takes it into her own hands. While yet in its nurse's arms, the infant, by hiding its face and crying at the sight of a stranger, shows the dawning instinct to attain safety by flying from that which is unknown and may be dangerous; and when it can walk, the terror it manifests if an unfamiliar dog comes near, or the

screams with which it runs to its mother after any startling sight or sound, shows this instinct further developed. Moreover, knowledge subserving direct self-preservation is that which it is chiefly busied in acquiring from hour to hour. How to balance its body; how to control its movements so as to avoid collisions; what objects are hard, and will hurt if struck; what objects are heavy, and injure if they fall on the limbs; which things will bear the weight of the body, and which not; the pains inflicted by fire, by missiles, by sharp instruments—these, and various other pieces of information needful for the avoidance of death or accident, it is ever learning. And when, a few years later, the energies go out in running, climbing, and jumping, in games of strength and games of skill, we see in all these actions by which the muscles are developed, the perceptions sharpened, and the judgment quickened, a preparation for the safe conduct of the body among surrounding objects and movements; and for meeting those greater dangers that occasionally occur in the lives of all. Being thus, we may say, so well cared for by Nature, this fundamental education needs comparatively little care from us. What we are chiefly called upon to see, is, that there shall be free scope for gaining this experience, and receiving this discipline,—that there shall be no such thwarting of Nature as that by which stupid schoolmistresses commonly prevent the girls in their charge from the spontaneous physical activities they would indulge in; and so render them comparatively incapable of taking care of themselves in circumstances of peril.

This, however, is by no means all that is comprehended in the education that prepares for direct self-preservation. Besides guarding the body against mechanical damage or destruction, it has to be guarded against injury from other causes—against the disease and death that follow breaches of physiologic law. For complete living it is necessary, not only that sudden annihilations of life shall be warded off; but also that there shall be escaped the incapacities and the slow annihilation which unwise habits entail. As, without health and energy, the industrial, the

parental, the social, and all other activities become more or less impossible; it is clear that this secondary kind of direct self-preservation is only less important than the primary kind; and that knowledge tending to secure it should rank very high.

It is true that here, too, guidance is in some measure ready supplied. By our various physical sensations and desires, Nature has insured a tolerable conformity to the chief requirements. Fortunately for us, want of food, great heat, extreme cold, produce promptings too peremptory to be disregarded. And would men habitually obey these and all like promptings when less strong, comparatively few evils would arise. If fatigue of body or brain were in every case followed by desistance; if the oppression produced by a close atmosphere always led to ventilation; if there were no eating without hunger, or drinking without thirst; then would the system be but seldom out of working order. But so profound an ignorance is there of the laws of life, that men do not even know that their sensations are their natural guides, and (when not rendered morbid by long-continued disobedience) their trustworthy guides. So that though, to speak teleologically, Nature has provided efficient safeguards to health, lack of knowledge makes them in a great measure useless.

If any one doubts the importance of an acquaintance with the fundamental principles of physiology as a means to complete living, let him look around and see how many men and women he can find in middle or later life who are thoroughly well. Occasionally only do we meet with an example of vigorous health continued to old age; hourly do we meet with examples of acute disorder, chronic ailment, general debility, premature decrepitude. Scarcely is there one to whom you put the question, who has not, in the course of his life brought upon himself illnesses which a little knowledge would have saved him from. Here is a case of heart disease, consequent on a rheumatic fever that followed reckless exposure. There is a case of eyes spoiled for life by overstudy. Yesterday the account was of one whose long-enduring lameness was brought on by continuing, spite of the pain, to use a

knee after it had been slightly injured. And to-day we are told of another who has had to lie by for years, because he did not know that the palpitation he suffered from resulted from overtaxed brain. Now we hear of an irremediable injury that followed some silly feat of strength; and, again, of a constitution that has never recovered from the effects of excessive work needlessly undertaken. While on all sides we see the perpetual minor ailments which accompany feebleness. Not to dwell on the natural pain, the weariness, the gloom, the waste of time and money thus entailed, only consider how greatly ill-health hinders the discharge of all duties—makes business often impossible, and always more difficult; produces an irritability fatal to the right management of children; puts the functions of citizenship out of the question; and makes amusement a bore. Is it not clear that the physical sins—partly our forefathers' and partly our own—which produce this ill-health, deduct more from complete living than anything else? and to a great extent make life a failure and a burden instead of a benefaction and a pleasure?

To all which add the fact, that life, besides being thus immensely deteriorated, is also cut short. It is not true, as we commonly suppose, that a disorder or disease from which we have recovered leaves us as before. No disturbance of the normal course of the functions can pass away and leave things exactly as they were. In all cases a permanent damage is done—not immediately appreciable, it may be, but still there; and along with other such items which Nature in her strict account-keeping never drops, will tell against us to the inevitable shortening of our days. Through the accumulation of small injuries it is that constitutions are commonly undermined, and break down, long before their time. And if we call to mind how far the average duration of life falls below the possible duration, we see how immense is the loss. When, to the numerous partial deductions which bad health entails, we add this great final deduction, it results that ordinarily more than one-half of life is thrown away.

Hence, knowledge which subserves direct self-preserva-

tion by preventing this loss of health, is of primary importance. We do not contend that possession of such knowledge would by any means wholly remedy the evil. For it is clear that in our present phase of civilization men's necessities often compel them to transgress. And it is further clear that, even in the absence of such compulsion, their inclinations would frequently lead them, spite of their knowledge, to sacrifice future good to present gratification. But we do contend that the right knowledge impressed in the right way would effect much; and we further contend that as the laws of health must be recognized before they can be fully conformed to, the imparting of such knowledge must precede a more rational living—come when that may. We infer that as vigorous health and its accompanying high spirits are larger elements of happiness than any other things whatever, the teaching how to maintain them is a teaching that yields in moment to no other whatever. And therefore we assert that such a course of physiology as is needful for the comprehension of its general truths, and their bearings on daily conduct, is an all-essential part of a rational education.

Strange that the assertion should need making! Stranger still that it should need defending! Yet are there not a few by whom such a proposition will be received with something approaching to derision. Men who would blush if caught saying Iphigénia instead of Iphigenia, or would resent as an insult any imputation of ignorance respecting the fabled labors of a fabled demi-god, show not the slightest shame in confessing that they do not know where the Eustachian tubes are, what are the actions of the spinal cord, what is the normal rate of pulsation, or how the lungs are inflated. While anxious that their sons should be well up in the superstitions of two thousand years ago, they care not that they should be taught anything about the structure and functions of their own bodies—nay, would even disapprove such instruction. So overwhelming is the influence of established routine! So terribly in our education does the ornamental override the useful.

We need not insist on the value of that knowledge which aids indirect self-preservation by facilitating the gaining of a livelihood. This is admitted by all; and, indeed, by the mass is perhaps too exclusively regarded as the end of education. But while every one is ready to endorse the abstract proposition that instruction fitting youths for the business of life is of high importance, or even to consider it of supreme importance; yet scarcely any inquire what instruction will so fit them. It is true that reading, writing, and arithmetic are taught with an intelligent appreciation of their uses; but when we have said this we have said nearly all. While the great bulk of what else is acquired has no bearing on the industrial activities, an immensity of information that has a direct bearing on the industrial activities is entirely passed over.

For, leaving out only some very small classes, what are all men employed in? They are employed in the production, preparation, and distribution of commodities. And on what does efficiency in the production, preparation, and distribution of commodities depend? It depends on the use of methods fitted to the respective natures of these commodities; it depends on an adequate knowledge of their physical, chemical, or vital properties, as the case may be; that is, it depends on science. This order of knowledge, which is in great part ignored in our school courses, is the order of knowledge underlying the right performance of all those processes by which civilized life is made possible. Undeniable as is this truth, and thrust upon us as it is at every turn, there seems to be no living consciousness of it; its very familiarity makes it unregarded. To give due weight to our argument, we must, therefore, realize this truth to the reader by a rapid review of the facts.

For all the higher arts of construction, some acquaintance with mathematics is indispensable. The village carpenter, who, lacking rational instruction, lays out his work by empirical rules learnt in his apprenticeship, equally with the builder of a Britannia Bridge, makes hourly reference to the laws of quantitative relations. The surveyor on whose survey the land is purchased; the

architect in designing a mansion to be built on it; the builder in preparing his estimates; his foreman in laying out the foundations; the masons in cutting the stones; and the various artisans who put up the fittings; are all guided by geometrical truths. Railway making is regulated from beginning to end by mathematics: alike in the preparation of plans and sections; in staking out the line; in the mensuration of cuttings and embankments; in the designing, estimating, and building of bridges, culverts, viaducts, tunnels, stations. And similarly with the harbors, docks, piers, and various engineering and architectural works that fringe the coasts and overspread the face of the country; as well as the mines that run underneath it. Out of geometry, too, as applied to astronomy, the art of navigation has grown; and so by this science, has been made possible that enormous foreign commerce which supports a large part of our population, and supplies us with many necessities and most of our luxuries. And now-a-days even the farmer, for the correct laying out of his drains, has recourse to the level—that is, to geometrical principles. When from those divisions of mathematics which deal with *space*, and *number*, some small smattering of which is given in schools, we turn to that other division which deals with *force*, of which even a smattering is scarcely ever given, we meet with another large class of activities which this science presides over. On the application of rational mechanics depends the success of nearly all modern manufacture. The properties of the lever, the wheel and axle, etc., are involved in every machine—every machine is a solidified mechanical theorem; and to machinery in these times we owe nearly all production. Trace the history of the breakfast roll. The soil out of which it came was drained with machine-made tiles; the surface was turned over by a machine; the seed was put in by a machine; the wheat was reaped, thrashed, and winnowed by machines; by machinery it was ground and bolted; and had the flour been sent to Gosport, it might have been made into biscuits by a machine. Look round the room in which you sit. If modern, probably the bricks in its walls were machine-

made; by machinery the flooring was sawn and planed, the mantel-shelf sawn and polished, the paperhangings made and printed; the veneer on the table, the turned legs of the chairs, the carpet, the curtains, are all products of machinery. And your clothing—plain, figured, or printed—is it not wholly woven, nay, perhaps even sewed by machinery? And the volume you are reading—are not its leaves fabricated by one machine and covered with these words by another? Add to which that for the means of distribution over both land and sea, we are similarly indebted. And then let it be remembered that according as the principles of mechanics are well or ill used to these ends, comes success or failure—individual and national. The engineer who misapplies his formulæ for the strength of materials, builds a bridge that breaks down. The manufacturer whose apparatus is badly devised, cannot compete with another whose apparatus wastes less in friction and inertia. The shipbuilder adhering to the old model, is out-sailed by one who builds on the mechanically-justified wave-line principle. And as the ability of a nation to hold its own against other nations depends on the skilled activity of its units, we see that on such knowledge may turn the national fate. Judge then the worth of mathematics.

Pass next to physics. Joined with mathematics, it has given us the steam engine, which does the work of millions of laborers. That section of physics which deals with the laws of heat, has taught us how to economize fuel in our various industries; how to increase the produce of our smelting furnaces by substituting the hot for the cold blast; how to ventilate our mines; how to prevent explosions by using the safety lamp; and, through the thermometer, how to regulate innumerable processes. That division which has the phenomena of light for its subject, gives eyes to the old and the myopic; aids through the microscope in detecting diseases and adulterations; and by improved lighthouses prevents shipwrecks. Researches in electricity and magnetism have saved incalculable life and property by the compass; have subserved sundry arts by the electrotype; and now in the telegraph, have sup-

plied us with the agency by which for the future all mercantile transactions will be regulated, political intercourse carried on, and perhaps national quarrels often avoided. While in the details of indoor life, from the improved kitchen range up to the stereoscope on the drawing room table, the application of advanced physics underlie our comforts and gratifications.

Still more numerous are the bearings of chemistry on those activities by which men obtain the means of living. The bleacher, the dyer, the calico printer, are severally occupied in processes that are well or ill done according as they do or do not conform to chemical laws. The economical reduction from their ores of copper, tin, zinc, lead, silver, iron, are in a great measure questions of chemistry. Sugar refining, gas making, soap boiling, gunpowder manufacture, are operations all partly chemical; as are also those by which are produced glass and porcelain. Whether the distiller's work stops at the alcoholic fermentation or passes into the acetous, is a chemical question on which hangs his profit or loss and the brewer, if his business is sufficiently large, finds it pays to keep a chemist on his premises. Glance through a work on technology, and it becomes at once apparent that there is now scarcely any process in the arts or manufactures over some part of which chemistry does not preside. And then, lastly, we come to the fact that in these times, agriculture, to be profitably carried on, must have like guidance. The analysis of manures and soils; their adaptations to each other; the use of gypsum or other substance for fixing ammonia; the utilization of coprolites; the production of artificial manures—all these are boons of chemistry which it behooves the farmer to acquaint himself with. Be it in the lucifer match, or in disinfected sewage, or in photographs—in bread made without fermentation, or perfumes extracted from refuse, we may perceive that chemistry affects all our industries; and that, by consequence, knowledge of it concerns every one who is directly or indirectly connected with our industries.

And then the science of life—biology: does not this, too, bear fundamentally upon these processes of indirect self-

preservation? With what we ordinarily call manufactures, it has, indeed, little connection; but with the all-essential manufacture—that of food—it is inseparably connected. As agriculture must conform its methods to the phenomena of vegetable and animal life, it follows necessarily that the science of these phenomena is the rational basis of agriculture. Various biological truths have indeed been empirically established and acted upon by farmers while yet there has been no conception of them as science: such as that particular manures are suited to particular plants; that crops of certain kinds unfit the soil for other crops; that horses cannot do good work on poor food; that such and such diseases of cattle and sheep are caused by such and such conditions. These, and the every-day knowledge which the agriculturist gains by experience respecting the right management of plants and animals, constitute his stock of biological facts; on the largeness of which greatly depends his success. And as these biological facts, scanty, indefinite, rudimentary, though they are, aid him so essentially; judge what must be the value to him of such facts when they become positive, definite, and exhaustive. Indeed, even now we may see the benefits that rational biology is conferring on him. The truth that the production of animal heat implies waste of substance, and that, therefore, preventing loss of heat prevents the need for extra food—a purely theoretical conclusion—now guides the fattening of cattle: it is found that by keeping cattle warm, fodder is saved. Similarly with respect to variety of food. The experiments of physiologists have shown that not only is change of diet beneficial, but that digestion is facilitated by a mixture of ingredients in each meal: both which truths are now influencing cattle feeding. The discovery that a disorder known as “the staggers,” of which many thousands of sheep have died annually, is caused by an entozoon which presses on the brain; and that if the creature is extracted through the softened place in the skull which marks its position, the sheep usually recovers, is another debt which agriculture owes to biology. When we observe the marked contrast between our farming and farming on the continent, and

remember that this contrast is mainly due to the far greater influence science has had upon farming here than there; and when we see how, daily, competition is making the adoption of scientific methods more general and necessary; we shall rightly infer that very soon, agricultural success in England will be impossible without a competent knowledge of animal and vegetable physiology.

Yet one more science have we to note as bearing directly on industrial success—the science of society. Without knowing it, men who daily look at the state of the money market, glance over prices current, discuss the probable crops of corn, cotton, sugar, wool, silk, weigh the chances of war, and from all those data decide on their mercantile operations, are students of social science: empirical and blundering students it may be; but still, students who gain the prizes or are plucked of their profits, according as they do or do not reach the right conclusion. Not only the manufacturer and the merchant must guide their transactions by calculations of supply and demand, based on numerous facts, and tacitly recognizing sundry general principles of social action; but even the retailer must do the like: his prosperity very greatly depending upon the correctness of his judgments respecting the future wholesale prices and the future rates of consumption. Manifestly, all who take part in the entangled commercial activities of a community, are vitally interested in understanding the laws according to which those activities vary.

Thus, to all such as are occupied in the production, exchange, or distribution of commodities, acquaintance with science in some of its departments, is of fundamental importance. Whoever is immediately or remotely implicated in any form of industry (and few are not) has a direct interest in understanding something of the mathematical, physical, and chemical properties of things; perhaps, also, has a direct interest in biology; and certainly has in sociology. Whether he does or does not succeed well in that indirect self-preservation which we call getting a good livelihood, depends in a great degree on his knowledge of one or more of these sciences: not, it may be, a rational knowledge; but still a knowledge, though

empirical. For what we call learning a business, really implies learning the science involved in it; though not perhaps under the name of science. And hence a grounding in science is of great importance, both because it prepares for all this, and because rational knowledge has an immense superiority over empirical knowledge. Moreover, not only is it that scientific culture is requisite for each, that he may understand the *how* and the *why* of the things and processes with which he is concerned as maker or distributor; but it is often of much moment that he should understand the *how* and the *why* of various other things and processes. In this age of joint stock undertakings, nearly every man above the laborer is interested as capitalist in some other occupation than his own; and, as thus interested, his profit or loss often depends on his knowledge of the sciences bearing on this other occupation. Here is a mine, in the sinking of which many shareholders ruined themselves, from not knowing that a certain fossil belonged to the old red sandstone, below which no coal is found. Not many years ago, 20,000*l.* was lost in the prosecution of a scheme for collecting the alcohol that distills from bread in baking: all of which would have been saved to the subscribers, had they known that less than a hundredth part by weight of the flour is changed in fermentation. Numerous attempts have been made to construct electro-magnetic engines in the hope of superseding steam; but had those who supplied the money, understood the general law of the correlation and equivalence of forces, they might have had better balances at their bankers. Daily are men induced to aid in carrying out inventions which a mere tyro in science could show to be futile. Scarcely a locality but has its history of fortunes thrown away over some impossible project.

And if already the loss from want of science is so frequent and so great, still greater and more frequent will it be to those who hereafter lack science. Just as fast as productive processes become more scientific, which competition will inevitably make them do; and just as fast as joint stock undertakings spread, which they certainly

will; so fast will scientific knowledge grow necessary to every one.

That which our school courses leave almost entirely out, we thus find to be that which most nearly concerns the business of life. All our industries would cease, were it not for that information which men begin to acquire as they best may after their education is said to be finished. And were it not for this information, that has been from age to age accumulated and spread by unofficial means, these industries would never have existed. Had there been no teaching but such as is given in our public schools, England would now be what it was in feudal times. That increasing acquaintance with the laws of phenomena which has through successive ages enabled us to subjugate nature to our needs, and in these days gives the common laborer comforts which a few centuries ago kings could not purchase, is scarcely in any degree owed to the appointed means of instructing our youth. The vital knowledge—that by which we have grown as a nation to what we are, and which now underlies our whole existence, is a knowledge that has got itself taught in nooks and corners; while the ordained agencies for teaching have been mumbling little else but dead formulas.

We come now to the third great division of human activities—a division for which no preparation whatever is made. If by some strange chance not a vestige of us descended to the remote future save a pile of our school books or some college examination papers, we may imagine how puzzled an antiquary of the period would be on finding in them no indication that the learners were ever likely to be parents. “This must have been the *curriculum* for their celibates,” we may fancy him concluding. “I perceive here an elaborate preparation for many things: especially for reading the books of extinct nations and of co-existing nations (from which indeed it seems clear that these people had very little worth reading in their own tongue); but I find no reference whatever to the bringing up of children. They could not have been so absurd as to omit all training for this gravest of responsibilities. Evi-

dently then, this was the school course of one of their monastic orders.”

Seriously, is it not an astonishing fact, that though on the treatment of offspring depend their lives or deaths, and their moral welfare or ruin; yet not one word of instruction on the treatment of offspring is ever given to those who will hereafter be parents? Is it not monstrous that the fate of a new generation should be left to the chances of unreasoning custom, impulse, fancy—joined with the suggestions of ignorant nurses and the prejudiced counsel of grandmothers? If a merchant commenced business without any knowledge of arithmetic and bookkeeping, we should exclaim at his folly, and look for disastrous consequences. Or if, before studying anatomy, a man set up as a surgical operator, we should wonder at his audacity and pity his patients. But that parents should begin the difficult task of rearing children without ever having given a thought to the principles—physical, moral, or intellectual—which ought to guide them, excites neither surprise at the actors nor pity for their victims.

To tens of thousands that are killed, add hundreds of thousands that survive with feeble constitutions, and millions that grow up with constitutions not so strong as they should be; and you will have some idea of the curse inflicted on their offspring by parents ignorant of the laws of life. Do but consider for a moment that the regimen to which children are subject is hourly telling upon them to their life-long injury or benefit; and that there are twenty ways of going wrong to one way of going right; and you will get some idea of the enormous mischief that is almost everywhere inflicted by the thoughtless, haphazard system in common use. Is it decided that a boy shall be clothed in some flimsy short dress, and be allowed to go playing about with limbs reddened by cold? The decision will tell on his whole future existence—either in illnesses; or in stunted growth; or in deficient energy; or in a maturity less vigorous than it ought to have been, and consequent hindrances to success and happiness. Are children doomed to a monotonous dietary, or a dietary that is deficient in nutritiveness? Their ultimate physical power and their

efficiency as men and women, will inevitably be more or less diminished by it. Are they forbidden vociferous play, or (being too ill-clothed to bear exposure), are they kept indoors in cold weather? They are certain to fall below that measure of health and strength to which they would else have attained. When sons and daughters grow up sickly and feeble, parents commonly regard the event as a misfortune—as a visitation of Providence. Thinking after the prevalent chaotic fashion, they assume that these evils come without causes; or that the causes are supernatural. Nothing of the kind. In some cases the causes are doubtless inherited; but in most cases foolish regulations are the causes. Very generally parents themselves are responsible for all this pain, this debility, this depression, this misery. They have undertaken to control the lives of their offspring from hour to hour; with cruel carelessness they have neglected to learn anything about these vital processes which they are unceasingly affecting by their commands and prohibitions; in utter ignorance of the simplest physiologic laws, they have been year by year undermining the constitutions of their children; and have so inflicted disease and premature death, not only on them but on their descendants.

Equally great are the ignorance and the consequent injury, when we turn from physical training to moral training. Consider the young mother and her nursery legislation. But a few years ago she was at school, where her memory was crammed with words, and names, and dates, and her reflective faculties scarcely in the slightest degree exercised—where not one idea was given her respecting the methods of dealing with the opening mind of childhood; and where her discipline did not in the least fit her for thinking out methods of her own. The intervening years have been passed in practicing music, in fancy work, in novel reading, and in party going; no thought having yet been given to the grave responsibilities of maternity; and scarcely any of that solid intellectual culture obtained which would be some preparation for such responsibilities. And now see her with an unfolding human character committed to her charge—see her pro-

foundly ignorant of the phenomena with which she has to deal, undertaking to do that which can be done but imperfectly even with the aid of the profoundest knowledge. She knows nothing about the nature of the emotions, their order of evolution, their functions, or where use ends and abuse begins. She is under the impression that some of the feelings are wholly bad, which is not true of any one of them; and that others are good, however far they may be carried, which is also not true of any one of them. And then, ignorant as she is of that with which she has to deal, she is equally ignorant of the effects that will be produced on it by this or that treatment. What can be more inevitable than the disastrous results we see hourly arising? Lacking knowledge of mental phenomena, with their causes and consequences, her interference is frequently more mischievous than absolute passivity would have been. This and that kind of action, which are quite normal and beneficial, she perpetually thwarts; and so diminishes the child's happiness and profit, injures its temper and her own, and produces estrangement. Deeds which she thinks it desirable to encourage, she gets performed by threats and bribes, or by exciting a desire for applause: considering little what the inward motive may be, so long as the outward conduct conforms; and thus cultivating hypocrisy, and fear, and selfishness, in place of good feeling. While insisting on truthfulness, she constantly sets an example of untruth, by threatening penalties which she does not inflict. While inculcating self-control, she hourly visits on her little ones angry scoldings for acts that do not call for them. She has not the remotest idea that in the nursery, as in the world, that alone is the truly salutary discipline which visits on all conduct, good and bad, the natural consequences — the consequences, pleasurable or painful, which in the nature of things such conduct tends to bring. Being thus without theoretic guidance, and quite incapable of guiding herself by tracing the mental processes going on in her children, her rule is impulsive, inconsistent, mischievous, often in the highest degree; and would indeed be generally ruinous, were it not that the overwhelming tendency of the growing mind

to assume the moral type of the race, usually subordinates all minor influences.

And then the culture of the intellect—is not this, too, mismanaged in a similar manner? Grant that the phenomena of intelligence conform to laws; grant that the evolution of intelligence in a child also conforms to laws; and it follows inevitably that education can be rightly guided only by a knowledge of these laws. To suppose that you can properly regulate this process of forming and accumulating ideas, without understanding the nature of the process is absurd. How widely, then, must teaching as it is, differ from teaching as it should be; when hardly any parents, and but few teachers, know anything about psychology. As might be expected, the system is grievously at fault, alike in matter and in manner. While the right class of facts is withheld, the wrong class is forcibly administered in the wrong way and in the wrong order. With that common limited idea of education which confines it to knowledge gained from books, parents thrust primers into the hands of their little ones years too soon, to their great injury. Not recognizing the truth that the function of books is supplementary—that they form an indirect means to knowledge when direct means fail—a means of seeing through other men what you cannot see for yourself; they are eager to give second-hand facts in place of first-hand facts. Not perceiving the enormous value of that spontaneous education which goes on in early years—not perceiving that a child's restless observation, instead of being ignored or checked, should be diligently administered to, and made as accurate and complete as possible; they insist on occupying its eyes and thoughts with things that are, for the time being, incomprehensible and repugnant. Possessed by a superstition which worships the symbols of knowledge instead of the knowledge itself, they do not see that only when his acquaintance with the objects and processes of the household, the streets, and the fields, is becoming tolerably exhaustive—only then should a child be introduced to the new sources of information which books supply: and this, not only because immediate cognition is of far greater value than

mediate cognition; but also because the words contained in books can be rightly interpreted into ideas, only in proportion to the antecedent experience of things. Observe next, that this formal instruction, far too soon commenced, is carried on with but little reference to the laws of mental development. Intellectual progress is of necessity from the concrete to the abstract. But regardless of this, highly abstract subjects, such as grammar, which should come quite late, are begun quite early. Political geography, dead and uninteresting to a child, and which should be an appendage of sociological studies is commenced betimes; while physical geography, comprehensible and comparatively attractive to a child, is in great part passed over. Nearly every subject dealt with is arranged in abnormal order: definitions, and rules, and principles being put first, instead of being disclosed, as they are in the order of nature, through the study of cases. And then, pervading the whole, is the vicious system of rote learning—a system of sacrificing the spirit to the letter. See the results. What with perceptions unnaturally dulled by early thwarting, and a coerced attention to books—what with the mental confusion produced by teaching subjects before they can be understood, and in each of them giving generalizations before the facts of which these are the generalizations—what with making the pupil a mere passive recipient of other's ideas, and not in the least leading him to be an active inquirer or self-instructor—and what with taxing the faculties to excess; there are very few minds that become as efficient as they might be. Examinations being once passed, books are laid aside; the greater part of what has been acquired, being unorganized, soon drops out of recollection; what remains is mostly inert—the art of applying knowledge not having been cultivated; and there is but little power either of accurate observation or independent thinking. To all which add, that while much of the information gained is of relatively small value, an immense mass of information of transcendent value is entirely passed over.

Thus we find the facts to be such as might have been inferred *a priori*. The training of children—physical,

moral, and intellectual—is dreadfully defective. And in great measure it is so, because parents are devoid of that knowledge by which this training can alone be rightly guided. What is to be expected when one of the most intricate of problems is undertaken by those who have given scarcely a thought to the principles on which its solution depends? For shoe making or house building, for the management of a ship or a locomotive engine, a long apprenticeship is needful. Is it, then, that the unfolding of a human being in body and mind, is so comparatively simple a process, that any one may superintend and regulate it with no preparation whatever? If not—if the process is with one exception more complex than any in Nature, and the task of administering to it one of surpassing difficulty; is it not madness to make no provision for such a task? Better sacrifice accomplishments than omit this all-essential instruction. When a father, acting on false dogmas adopted without examination, has alienated his sons, driven them into rebellion by his harsh treatment, ruined them, and made himself miserable; he might reflect that the study of Ethology would have been worth pursuing, even at the cost of knowing nothing about Aeschylus. When a mother is mourning over a first born that has sunk under the sequelæ of scarlet fever—when perhaps a candid medical man has confirmed her suspicion that her child would have recovered had not its system been enfeebled by over study—when she is prostrate under the pangs of combined grief and remorse; it is but a small consolation that she can read Dante in the original.

Thus we see that for regulating the third great division of human activities, a knowledge of the laws of life is the one thing needful. Some acquaintance with the first principles of physiology and the elementary truths of psychology is indispensable for the right bringing up of children. We doubt not that this assertion will by many be read with a smile. That parents in general should be expected to acquire a knowledge of subjects so abstruse, will seem to them an absurdity. And if we proposed that an exhaustive knowledge of these subjects should be

obtained by all fathers and mothers, the absurdity would indeed be glaring enough. But we do not. General principles only, accompanied by such detailed illustrations as may be needed to make them understood, would suffice. And these might be readily taught—if not rationally, then dogmatically. Be this as it may, however, here are the indisputable facts: that the development of children in mind and body rigorously obeys certain laws; that unless these laws are in some degree conformed to by parents, death is inevitable; that unless they are in a great degree conformed to, there must result serious physical and mental defects; and that only when they are completely conformed to, can a perfect maturity be reached. Judge, then, whether all who may one day be parents, should not strive with some anxiety to learn what these laws are.

From the parental functions let us pass now to the functions of the citizen. We have here to inquire what knowledge best fits a man for the discharge of these functions. It cannot be alleged, as in the last case, that the need for knowledge fitting him for these functions is wholly overlooked; for our school courses contain certain studies which, nominally at least, bear upon political and social duties. Of these the only one that occupies a prominent place is history.

But as already more than once hinted, the historic information commonly given is almost valueless for purposes of guidance. Scarcely any of the facts set down in our school histories, and very few even of those contained in the more elaborate works written for adults, give any clue to the right principles of political action. The biographies of monarchs (and our children commonly learn little else) throw scarcely any light upon the science of society. Familiarity with court intrigues, plots, usurpations, or the like, and with all the personalities accompanying them, aids very little in elucidating the principles on which national welfare depends. We read of some squabble for power, that it led to a pitched battle; that such and such were the names of the generals and their leading subordinates; that they had each so many thousand infantry and cavalry, and so many cannon; that

they arranged their forces in this and that order; that they maneuvered, attacked and fell back in certain ways; that at this part of the day such disasters were sustained and at that such advantages gained; that in one particular movement some leading officer fell, while in another a certain regiment was decimated; that after all the changing fortunes of the fight, the victory was gained by this or that army; and that so many were killed and wounded on each side, and so many captured by the conquerors. And now, out of the accumulated details which make up the narrative, say which it is that helps you in deciding on your conduct as a citizen. Supposing even that you had diligently read, not only "The Fifteen Decisive Battles of the World," but accounts of all other battles that history mentions; how much more judicious would your vote be at the next election? "But these are facts—interesting facts," you say. Without doubt they are facts (such, at least, as are not wholly or partially fictions); and to many they may be interesting facts. But this by no means implies that they are valuable. Factitious or morbid opinion often gives seeming value to things that have scarcely any. A tulipomaniac will not part with a choice bulb for its weight in gold. To another man an ugly piece of cracked old china seems his most desirable possession. And there are those who give high prices for the relics of celebrated murderers. Will it be contended that these tastes are any measures of value in the things that gratify them? If not, then it must be admitted that the liking felt for certain classes of historical facts is no proof of their worth; and that we must test their worth as we test the worth of other facts, by asking to what uses they are applicable. Were some one to tell you that your neighbor's cat kittened yesterday, you would say the information was worthless. Fact though it might be, you would say it was an utterly useless fact—a fact that could in no way influence your actions in life—a fact that would not help you in learning how to live completely. Well, apply the same test to the great mass of historical facts, and you will get the same results. They are facts from which no conclusions can be

drawn—*unorganizable* facts; and therefore facts which can be of no service in establishing principles of conduct, which is the chief use of facts. Read them, if you like, for amusement; but do not flatter yourself they are instructive.

That which constitutes history, properly so called, is in great part omitted from works on the subject. Only of late years have historians commenced giving us, in any considerable quantity, the truly valuable information. As in past ages the king was everything and the people nothing; so, in past histories the doings of the king fill the entire picture, to which the national life forms but an obscure background. While only now, when the welfare of nations rather than of rulers is becoming the dominant idea, are historians beginning to occupy themselves with the phenomena of social progress. That which it really concerns us to know, is the natural history of society. We want all facts which help us to understand how a nation has grown and organized itself. Among these, let us of course have an account of its government; with as little as may be of gossip about the men who officered it, and as much as possible about the structure, principles, methods, prejudices, corruptions, etc., which it exhibited: and let this account not only include the nature and actions of the central government, but also those of local governments, down to their minutest ramifications. Let us of course also have a parallel description of the ecclesiastical government—its organization, its conduct, its power, its relations to the State: and accompanying this, the ceremonial, creed, and religious ideas—not only those nominally believed, but those really believed and acted upon. Let us at the same time be informed of the control exercised by class over class, as displayed in all social observances—in titles, salutations, and forms of address. Let us know, too, what were all the other customs which regulated the popular life out of doors and in doors: including those which concern the relations of the sexes, and the relations of parents to children. The superstitions, also, from the more important myths down to the charms in common use, should be indicated. Next should

come a delineation of the industrial system; showing to what extent the division of labor was carried; how trades were regulated, whether by caste, guilds, or otherwise; what was the connection between employers and employed; what were the agencies for distributing commodities, what were the means of communication; what was the circulating medium. Accompanying all which should come an account of the industrial arts technically considered; stating the processes in use, and the quality of the products. Further, the intellectual condition of the nation in its various grades should be depicted: not only with respect to the kind and amount of education, but with respect to the progress made in science, and the prevailing manner of thinking. The degree of æsthetic culture, as displayed in architecture, sculpture, painting, dress, music, poetry, and fiction, should be described. Nor should there be omitted a sketch of the daily lives of the people—their food, their homes, and their amusements. And lastly, to connect the whole, should be exhibited the morals, theoretical and practical, of all classes: as indicated in their laws, habits, proverbs, deeds. All these facts, given with as much brevity as consists with clearness and accuracy, should be so grouped and arranged that they may be comprehended in their *ensemble*; and thus may be contemplated as mutually dependent parts of one great whole. The aim should be so to present them that we may readily trace the *consensus* subsisting among them; with the view of learning what social phenomena co-exists with what others. And then the corresponding delineations of succeeding ages should be so managed as to show us, as clearly as may be, how each belief, institution, custom, and arrangement was modified; and how the *consensus* of preceding structures and functions was developed into the *consensus* of succeeding ones. Such alone is the kind of information respecting past times, which can be of service to the citizen for the regulation of his conduct. The only history that is of practical value, is what may be called descriptive sociology. And the highest office which the historian can discharge, is that of so narrating the lives of nations, as

to furnish materials for a comparative sociology; and for the subsequent determination of the ultimate laws to which social phenomena conform.

But now mark, that even supposing an adequate stock of this truly valuable historical knowledge has been acquired, it is of comparatively little use without the key. And the key is to be found only in science. Without an acquaintance with the general truths of biology and psychology, rational interpretation of social phenomena is impossible. Only in proportion as men obtain a certain rude, empirical knowledge of human nature, are they enabled to understand even the simplest facts of social life: as, for instance, the relation between supply and demand. And if not even the most elementary truths of sociology can be reached until some knowledge is obtained of how men generally think, feel, and act under given circumstances; then it is manifest that there can be nothing like a wide comprehension of sociology, unless through a competent knowledge of man in all his faculties, bodily and mental. Consider the matter in the abstract, and this conclusion is self-evident. Thus: Society is made up of individuals; all that is done in society is done by the combined actions of individuals; and, therefore, in individual actions only can be found the solutions of social phenomena. But the actions of individuals depend on the laws of their natures; and their actions cannot be understood until these laws are understood. These laws, however, when reduced to their simplest expression, are found to depend on the laws of body and mind in general. Hence it necessarily follows, that biology and psychology are indispensable as interpreters of sociology. Or, to state the conclusions still more simply—all social phenomena are phenomena of life—are the most complex manifestations of life—are ultimately dependent on the laws of life—and can be understood only when the laws of life are understood. Thus, then, we see that for the regulation of this fourth division of human activities, we are, as before, dependent on science. Of the knowledge commonly imparted in educational courses, very little is of any service in guiding a man in his conduct as a citizen.

Only a small part of the history he reads is of practical value; and of this small part he is not prepared to make proper use. He commonly lacks not only the materials for, but the very conception of, descriptive sociology; and he also lacks that knowledge of the organic sciences, without which even descriptive sociology can give him but little aid.

And now we come to that remaining division of human life which includes the relaxations, pleasures, and amusements filling leisure hours. After considering what training best fits for self-preservation, for the obtainment of sustenance, for the discharge of parental duties, and for the regulation of social and political conduct; we have now to consider what training best fits for the miscellaneous ends not included in these—for the enjoyments of nature, of literature, and of the fine arts, in all their forms. Postponing them as we do to things that bear more vitally upon human welfare; and bringing everything, as we have, to the test of actual value; it will perhaps be inferred that we are inclined to slight these less essential things. No greater mistake could be made, however. We yield to none in the value we attach to æsthetic culture and its pleasures. Without painting, sculpture, music, poetry, and the emotions produced by natural beauty of every kind, life would lose half its charm. So far from thinking that the training and gratification of the tastes are unimportant, we believe the time will come when they will occupy a much larger share of human life than now. When the forces of nature have been fully conquered to man's use—when the means of production have been brought to perfection—when labor has been economized to the highest degree—when education has been so systematized that a preparation for the more essential activities may be made with comparative rapidity—and when, consequently, there is a great increase of spare time; then will the poetry, both of art and nature, rightly fill a large space in the minds of all.

But it is one thing to admit that æsthetic culture is in a high degree conducive to human happiness; and another thing to admit that it is a fundamental requisite to human

happiness. However important it may be, it must yield precedence to those kinds of culture which bear more directly upon the duties of life. As before hinted, literature and the fine arts are made possible by those activities which make individual and social life possible; and manifestly, that which is made possible, must be postponed to that which makes it possible. A florist cultivates a plant for the sake of its flower; and regards the roots and leaves as of value, chiefly because they are instrumental in producing the flower. But while, as an ultimate product, the flower is the thing to which everything else is subordinate, the florist very well knows that the root and leaves are intrinsically of greater importance; because on them the evolution of the flower depends. He bestows every care in rearing a healthy plant; and knows it would be folly if, in his anxiety to obtain the flower, he were to neglect the plant. Similarly in the case before us. Architecture, sculpture, painting, music, poetry, etc., may be truly called the efflorescence of civilized life. But even supposing them to be of such transcendent worth as to subordinate the civilized life out of which they grow (which can hardly be asserted), it will still be admitted that the production of a healthy civilized life must be the first consideration; and that the knowledge conducing to this must occupy the highest place.

And here we see most distinctly the vice of our educational system. It neglects the plant for the sake of the flower. In anxiety for elegance, it forgets substance. While it gives no knowledge conducive to self-preservation—while of knowledge that facilitates gaining a livelihood it gives but the rudiments, and leaves the greater part to be picked up any how in after life—while for the discharge of parental functions it makes not the slightest provision—and while for the duties of citizenship it prepares by imparting a mass of facts, most of which are irrelevant, and the rest without a key; it is diligent in teaching everything that adds to refinement, polish, eclat. However fully we may admit that extensive acquaintance with modern languages is a valuable accomplishment,

which, through reading, conversation, and travel, aids in giving a certain finish; it by no means follows that this result is rightly purchased at the cost of that vitally important knowledge sacrificed to it. Supposing it true that classical education conduces to elegance and correctness of style; it cannot be said that elegance and correctness of style are comparable in importance to a familiarity with the principles that should guide the rearing of children. Grant that the taste may be greatly improved by reading all the poetry written in extinct languages; yet it is not to be inferred that such improvement of taste is equivalent in value to an acquaintance with the laws of health. Accomplishments, the fine arts, *belles-lettres*, and all these things which, as we say, constitute the efflorescence of civilization, should be wholly subordinate to that knowledge and discipline in which civilization rests. *As they occupy the leisure part of life, so should they occupy the leisure part of education.*

Thus far our question has been, the worth of knowledge of this or that kind for purposes of guidance. We have now to judge the relative values of different kinds of knowledge for purposes of discipline. This division of our subject we are obliged to treat with comparative brevity; and happily, no very lengthened treatment of it is needed. Having found what is best for the one end, we have by implication found what is best for the other. We may be quite sure that the acquirement of those classes of facts which are most useful for regulating conduct, involves a mental exercise best fitted for strengthening the faculties. It would be utterly contrary to the beautiful economy of nature, if one kind of culture were needed for the gaining of information and another kind were needed as a mental gymnastic. Everywhere throughout creation we find faculties developed through the performance of those functions which it is their office to perform; not through the performance of artificial exercises devised to fit them for these functions. The Red Indian acquires the swiftness and agility which makes him a successful hunter, by the actual pursuit of animals; and by the miscellaneous

activities of his life, he gains a better balance of physical powers than gymnastics ever give. That skill in tracking enemies and prey which he has reached by long practice, implies a subtlety of perception far exceeding anything produced by artificial training. And similarly throughout. From the Bushman, whose eye, which being habitually employed in identifying distant objects that are to be pursued or fled from, has acquired a quite telescopic range, to the accountant whose daily practice enables him to add up several columns of figures simultaneously, we find that the highest power of a faculty results from the discharge of those duties which the conditions of life require it to discharge. And we may be certain, *a priori*, that the same law holds throughout education. The education of most value for guidance, must at the same time be the education of most value for discipline. Let us consider the evidence.

One advantage claimed for that devotion to language learning which forms so prominent a feature in the ordinary *curriculum*, is, that the memory is thereby strengthened. And it is apparently assumed that this is an advantage peculiar to the study of words. But the truth is, that the sciences afford far wider fields for the exercise of memory. It is no slight task to remember all the facts ascertained respecting our solar system; much more to remember all that is known concerning the structure of our galaxy. The new compounds which chemistry daily accumulates, are so numerous that few, save professors, know the names of them all; and to recollect the atomic constitutions and affinities of all these compounds, is scarcely possible without making chemistry the occupation of life. In the enormous mass of phenomena presented by the earth's crust, and in the still more enormous mass of phenomena presented by the fossils it contains, there is matter which it takes the geological student years of application to master. In each leading division of physics—sound, heat, light, electricity—the facts are numerous enough to alarm any one proposing to learn them all. And when we pass to the organic sciences, the effort of memory required becomes still greater. In

human anatomy alone, the quantity of detail is so great, that the young surgeon has commonly to get it up half a dozen times before he can permanently retain it. The number of species of plants which botanists distinguish, amounts to some 320,000; while the varied forms of animal life with which the zoölogist deals, are estimated at some two millions. So vast is the accumulation of facts which men of science have before them, that only by dividing and subdividing their labors can they deal with it. To a complete knowledge of his own division, each adds but a general knowledge of the rest. Surely, then, science, cultivated even to a very moderate extent, affords adequate exercise for memory. To say the very least, it involves quite as good a training for this faculty as language does.

But now mark that while for the training of mere memory, science is as good as, if not better than, language; it has an immense superiority in the kind of memory it cultivates. In the acquirement of a language, the connections of ideas to be established in the mind correspond to facts that are in a great measure accidental; whereas, in the acquirement of science, the connections of ideas to be established in the mind correspond to facts that are mostly necessary. It is true that the relations of words to their meaning is in one sense natural, and that the genesis of these relations may be traced back a certain distance; though very rarely to the beginning; (to which let us add the remark that the laws of this genesis form a branch of mental science—the science of philology). But since it will not be contended that in the acquisition of languages, as ordinarily carried on, these natural relations between words and their meanings are habitually traced, and the laws regulating them explained; it must be admitted that they are commonly learned as fortuitous relations. On the other hand, the relations which science presents are causal relations; and, when properly taught, are understood as such. Instead of being practically accidental, they are necessary; and as such, give exercise to the reasoning faculties. While language familiarizes with non-rational relations, science familiarizes with

rational relations. While the one exercises memory only, the other exercises both memory and understanding.

Observe next that a great superiority of science over language as a means of discipline, is, that it cultivates the judgment. As, in a lecture on mental education delivered at the Royal Institution, Professor Faraday well remarks, the most common intellectual fault is deficiency of judgment. He contends that "society, speaking generally, is not only ignorant as respects education of the judgment, but it is also ignorant of its ignorance." And the cause to which he ascribes this state is want of scientific culture. The truth of his conclusion is obvious. Correct judgment with regard to all surrounding things, events, and consequences, becomes possible only through knowledge of the way in which surrounding phenomena depend on each other. No extent of acquaintance with the meanings of words, can give the power of forming correct inferences respecting causes and effects. The constant drawing of conclusions from data, and then of verifying those conclusions by observation and experiment, can alone give the power of judging correctly. And that it necessitates this habit is one of the immense advantages of science.

Not only, however, for intellectual discipline is science the best; but also for *moral* discipline. The learning of languages tends, if anything, further to increase the already undue respect for authority. Such and such are the meanings of these words, says the teacher or the dictionary. So and so is the rule in this case, says the grammar. By the pupil these dicta are received as unquestionable. His constant attitude of mind is that of submission to dogmatic teaching. And a necessary result is a tendency to accept without inquiry whatever is established. Quite opposite is the attitude of mind generated by the cultivation of science. By science, constant appeal is made to individual reason. Its truths are not accepted upon authority alone; but all are at liberty to test them—nay, in many cases, the pupil is required to think out his own conclusions. Every step in a scientific investigation is submitted to his judgment. He is not asked to admit it without seeing it to be true. And the trust in his

own powers thus produced, is further increased by the constancy with which nature justifies his conclusions when they are correctly drawn. From all which there flows that independence which is a most valuable element in character. Nor is this the only moral benefit bequeathed by scientific culture. When carried on, as it should always be, as much as possible under the form of independent research, it exercises perseverance and sincerity. As says Professor Tyndall of inductive inquiry, "it requires patient industry, and an humble and conscientious acceptance of what nature reveals. The first condition of success is an honest receptivity and a willingness to abandon all preconceived notions, however cherished, if they be found to contradict the truth. Believe me, a self-renunciation which has something noble in it, and of which the world never hears, is often enacted in the private experience of the true votary of science."

Lastly we have to assert—and the assertion will, we doubt not, cause extreme surprise—that the discipline of science is superior to that of our ordinary education, because of the *religious* culture that it gives. Of course we do not here use the words scientific and religious in their ordinary limited acceptations; but in their widest and highest acceptations. Doubtless, to the superstitions that pass under the name of religion, science is antagonistic; but not to the essential religion which these superstitions merely hide. Doubtless, too, in much of the science that is current, there is a pervading spirit of irreligion; but not in that true science which has passed beyond the superficial into the profound.

"True science and true religion," says Professor Huxley at the close of a recent course of lectures, "are twin sisters, and the separation of either from the other is sure to prove the death of both. Science prospers exactly in proportion as it is religious; and religion flourishes in exact proportion to the scientific depth and firmness of its basis. The great deeds of philosophers have been less the fruit of their intellect than of the direction of that intellect by an eminently religious tone of mind. Truth has yielded herself rather to their patience, their love, their single

heartedness, and their self-denial, than to their logical acumen."

So far from science being irreligious, as many think, it is the neglect of science that is irreligious—it is the refusal to study the surrounding creation that is irreligious. Take a humble simile. Suppose a writer were daily saluted with praises couched in superlative language. Suppose the wisdom, the grandeur, the beauty of his works, were the constant topics of eulogies addressed to him. Suppose those who unceasingly uttered these eulogies on his works were content with looking at the outsides of them; and had never opened them, much less tried to understand them. What value should we put upon their praises? What should we think of their sincerity? Yet comparing small things to great, such is the conduct of mankind in general, in reference to the universe and its cause. Nay, it is worse. Not only do they pass by without study, these things which they daily proclaim to be so wonderful; but very frequently they condemn as mere triflers those who give time to the observation of nature—they actually scorn those who show any active interest in these marvels. We repeat, then, that not science, but the neglect of science, is irreligious. Devotion to science is a tacit worship—a tacit recognition of worth in the things studied; and by implication in their cause. It is not a mere lip-homage, but a homage expressed in actions—not a professed respect, but a respect proved by the sacrifice of time, thought and labor.

Nor is it thus only that true science is essentially religious. It is religious, too, inasmuch as it generates a profound respect for, and an implicit faith in, those uniform laws which underlie all things. By accumulated experiences the man of science acquires a thorough belief in the unchanging relations of phenomena—in the invariable connection of cause and consequence—in the necessity of good or evil results. Instead of the rewards and punishments of traditional belief, which men vaguely hope they may gain, or escape, spite of their disobedience; he finds that there are rewards and punishments in the ordained constitution of things, and that the evil results of

disobedience are inevitable. He sees that the laws to which we must submit are not only inexorable but beneficent. He sees that in virtue of these laws, the process of things is ever toward a greater perfection and a higher happiness. Hence he is led constantly to insist on these laws, and is indignant when men disregard them. And thus does he, by asserting the eternal principles of things and the necessity of conforming to them, prove himself intrinsically religious.

To all which add the further religious aspect of science, that it alone can give us true conceptions of ourselves and our relation to the mysteries of existence. At the same time that it shows us all which can be known, it shows us the limits beyond which we can know nothing. Not by dogmatic assertion does it teach the impossibility of comprehending the ultimate cause of things; but it leads us clearly to recognize this impossibility by bringing us in every direction to boundaries we cannot cross. It realizes to us in a way which nothing else can, the littleness of human intelligence in the face of that which transcends human intelligence. While toward the traditions and authorities of men its attitude may be proud, before the impenetrable veil which hides the Absolute its attitude is humble—a true pride and a true humility. Only the sincere man of science (and by this title we do not mean the mere calculator of distances, or analyzer of compounds, or labeller of species; but him who through lower truths seeks higher, and eventually the highest) only the genuine man of science, we say, can truly know how utterly beyond, not only human knowledge, but human conception, is the universal power of which nature, and life, and thought are manifestations.

We conclude, then, that for discipline, as well as for guidance, science is of chiefest value. In all its effects, learning the meanings of things, is better than learning the meanings of words. Whether for intellectual, moral, or religious training, the study of surrounding phenomena is immensely superior to the study of grammars and lexicons.

Thus to the question with which we set out—What knowledge is of most worth?—the uniform reply is—

Science. This is the verdict on all the counts. For direct self-preservation, or the maintenance of life and health, the all-important knowledge is—Science. For that indirect self-preservation which we call gaining a livelihood, the knowledge of greatest value is—Science. For the due discharge of parental functions, the proper guidance is to be found only in—Science. For that interpretation of national life, past and present, without which the citizen cannot rightly regulate his conduct, the indispensable key is—Science. Alike for the most perfect production and highest enjoyment of art in all its forms, the needful preparation is still—Science. And for purposes of discipline—intellectual, moral, religious—the most efficient study is, once more—Science. The question which at first seemed so perplex, has become in the course of our inquiry, comparatively simple. We have not to estimate the degrees of importance of different orders of human activity, and different studies as severally fitting us for them; since we find that the study of Science, in its most comprehensive meaning, is the best preparation for all these orders of activity. We have not to decide between the claims of knowledge of great though conventional value, and knowledge of less though intrinsic value; seeing that the knowledge which we find to be of most value in all other respects, is intrinsically most valuable: its worth is not dependent upon opinion, but is as fixed as is the relation of man to the surrounding world. Necessary and eternal as are its truths, all Science concerns all mankind for all time. Equally at present, and in the remotest future, must it be of incalculable importance for the regulation of their conduct, that men should understand the science of life, physical, mental, and social; and that they should understand all other science as a key to the science of life.

Herbert Spencer: *Education*.

**A SHORT VIEW OF THE STATE OF IRELAND
IN 1727**

I am assured, that it has for some time been practiced as a method of making men's court, when they are asked about the rate of lands, the abilities of tenants, the state of trade and manufacture in this kingdom, and how their rents are paid; to answer, that in their neighborhood all things are in a flourishing condition, the rent and purchase of land every day increasing. And if a gentleman happen to be a little more sincere in his representation, beside being looked on as not well-affected, he is sure to have a dozen contradictors at his elbow. I think it is no manner of secret, why these questions are so cordially asked, or so obligingly answered.

But since, with regard to the affairs of this kingdom, I have been using all endeavors to subdue my indignation; to which indeed I am not provoked by any personal interest, not being the owner of one spot of ground in the whole island, I shall only enumerate, by rules generally known, and never contradicted, what are the true causes of any country's flourishing and growing rich; and then examine what effects arise from those causes in the kingdom of Ireland.

The first cause of a kingdom's thriving is, the fruitfulness of the soil to produce the necessaries and conveniences of life; not only sufficient for the inhabitants, but for exportation into other countries.

The second is, the industry of the people, in working up all their native commodities to the last degree of manufacture.

The third is, the conveniency of safe ports and havens, to carry out their own goods as much manufactured, and bring in those of others as little manufactured, as the nature of natural commerce will allow.

The fourth is, that the natives should, as much as possible, export and import their goods in vessels of their own timber, made in their own country.

The fifth is, the privilege of a free trade in all foreign

countries which will permit them, except those who are in war with their own prince or state.

The sixth is, by being governed only by laws made with their own consent; for otherwise they are not a free people. And therefore, all appeals for justice, or applications for favor or preferment, to another country, are so many grievous impoverishments.

The seventh is, by improvement of land, encouragement of agriculture, and thereby increasing the number of their people; without which any country, however blessed by nature, must continue poor.

The eighth is, the residence of the prince, or chief administrator of the civil power.

The ninth is, the concourse of foreigners, for education, curiosity, or pleasure, or as to a general mart of trade.

The tenth is, by disposing all offices of honor, profit, or trust, only to the natives; or at least with very few exceptions, where strangers have long inhabited the country, and are supposed to understand and regard the interests of it as their own.

The eleventh is, when the rents of land and profits of employment are spent in the country which produced them, and not in another; the former of which will certainly happen where the love of our native country prevails.

The twelfth is, by the public revenues being all spent and employed at home, except on the occasions of a foreign war.

The thirteenth is, where the people are not obliged, unless they find it for their own interest or conveniency, to receive any monies, except of their own coinage by a public mint, after the manner of all civilized nations.

The fourteenth is, a disposition of the people of a country to wear their own manufactures, and import as few incitements to luxury, either in clothes, furniture, food, or drink, as they possibly can live conveniently without.

There are many other causes of a nation's thriving, which I at present cannot recollect; but without advantage from at least some of these, after turning my

thoughts a long time. I am not able to discover whence our wealth proceeds, and therefore would gladly be better informed. In the meantime I will here examine what share falls to Ireland of these causes, or of the effects and consequences.

It is not my intention to complain, but barely to relate facts; and the matter is not of small importance. For it is allowed, that a man who lives in a solitary house, far from help, is not wise in endeavoring to acquire in the neighborhood the reputation of being rich; because those who come for gold, will go off with pewter and brass, rather than return empty; and in the common practice of the world, those who possess most wealth make the least parade; which they leave to others, who have nothing else to bear them out in showing their faces on the Exchange.

As to the first cause of a nation's riches, being the fertility of the soil, as well as temperature of climate, we have no reason to complain; for, although the quantity of unprofitable land in this kingdom, reckoning bog and rock and barren mountain, be double in proportion to what it is in England; yet the native productions, which both kingdoms deal in, are very near on an equality in point of goodness, and might, with the same encouragement, be as well manufactured. I except mines and minerals; in some of which, however, we are only defective in point of skill and industry.

In the second, which is the industry of the people, our misfortune is not altogether owing to our own fault, but to a million of discouragements.

The conveniency of ports and havens, which nature has bestowed so liberally on this kingdom, is of no more use to us than a beautiful prospect to a man shut up in a dungeon.

As to shipping of its own, Ireland is so utterly unprovided, that of all the excellent timber cut down within these fifty or sixty years, it can hardly be said that the nation has received the benefit of one valuable house to dwell in, or one ship to trade with.

Ireland is the only kingdom I ever heard or read of,

either in ancient or modern story, which was denied the liberty of exporting their native commodities and manufactures wherever they pleased, except to countries at war with their own prince or state: yet this privilege, by the superiority of mere power, is refused us in the most momentous parts of commerce; beside an act of navigation, to which we never consented, pinned down upon us, and rigorously executed; and a thousand other unexampled circumstances, as grievous as they are invidious to mention. To go on to the rest.

It is too well known, that we are forced to obey some laws we never consented to; which is a condition I must not call by its true uncontroverted name. Thus we are in the condition of patients, who have physic sent them by doctors at a distance, strangers to their constitution and the nature of their disease; and thus we are forced to pay five hundred per cent. to decide our properties; in all which we have likewise the honor to be distinguished from the whole race of mankind.

As to the improvement of land, those few who attempt that or planting, through covetousness, or want of skill, generally leave things worse than they were; neither succeeding in trees nor hedges; and by running into the fancy of grazing, after the manner of the Scythians, are every day depopulating the country.

We are so far from having a king to reside among us, that even the viceroy is generally absent four-fifths of his time in the government.

No strangers from other countries make this a part of their travels; where they can expect to see nothing but scenes of misery and desolation.

Those who have the misfortune to be born here, have the least title to any considerable employment; to which they are seldom preferred, but upon a political consideration.

One-third part of the rents of Ireland is spent in England; which with the profit of employments, pensions, appeals, journeys of pleasure or health, education at the inns of court and both universities, remittances at pleasure, the pay of all superior officers in the army, and other

incidents, will amount to a full half of the income of the whole kingdom, all clear profit to England.

We are denied the liberty of coining gold, silver, or even copper. In the Isle of Man they coin their own silver; every petty prince, vassal to the emperor, can coin what money he pleases. And in this, as in most of the articles already mentioned, we are an exception to all other states or monarchies that were ever known in the world.

As to the last or fourteenth article, we take special care to act diametrically contrary to it in the whole course of our lives. Both sexes, but especially the women, despise and abhor to wear any of their own manufactures, even those which are better made than in other countries; particularly a sort of silk plaid, through which the workmen are forced to run a kind of gold thread that it may pass for Indian. Even ale and potatoes are imported from England, as well as corn; and our foreign trade is little more than importation of French wine, for which I am told we pay ready money.

Now, if all this be true (upon which I could easily enlarge) I should be glad to know, by what secret method it is, that we grow a rich and flourishing people, without liberty, trade, manufactures, inhabitants, money, or the privilege of coining; without industry, labor, or improvement of land; and with more than half the rent and profits of the whole kingdom annually exported, for which we receive not a single farthing: and to make up all this, nothing worth mentioning, except the linen of the north, a trade casual, corrupted, and at mercy; and some butter from Cork. If we do flourish, it must be against every law of nature and reason; like the thorn at Glastonbury, that blossoms in the midst of winter.

Let the worthy commissioners who come from England, ride round the kingdom, and observe the face of nature, or the face of the natives; the improvement of the land; the thriving numerous plantations; the noble woods; the abundance and vicinity of country seats; the commodious farms, houses, and barns; the towns and villages, where everybody is busy, and thriving with all kinds of manufacturers; the shops full of goods wrought to perfection,

and filled with customers; the comfortable diet, and dress, and dwellings of the people; the vast number of ships in our harbors and docks, and shipwrights in our seaport towns; the roads, crowded with carriers, laden with rich manufactures; the perpetual concourse to and fro of pompous equipages.

With what envy and admiration would those gentlemen return from so delightful a progress! what glorious reports would they make, when they went back to England!

But my heart is too heavy to continue this irony longer: for it is manifest, that whatever stranger took such a journey, would be apt to think himself traveling in Lapland or Ysland, rather than in a country so favored by nature as ours, both in fruitfulness of soil and temperature of climate. The miserable dress, and diet, and dwelling of the people; the general desolation in most parts of the kingdom; the old seats of the nobility and gentry all in ruins, and no new ones in their stead; the families of farmers, who pay great rents, living in filth and nastiness upon buttermilk and potatoes, without a shoe or stocking to their feet, or a house so convenient as an English hog sty to receive them. These indeed may be comfortable sights to an English spectator; who comes for a short time, only to learn the language, and returns back to his own country whither he finds all his wealth transmitted.

Nostra miseria magna est.

There is not one argument used to prove the riches of Ireland, which is not a logical demonstration of its poverty. The rise of our rents is squeezed out of the very blood, and vitals, and clothes, and dwellings of the tenants who live worse than English beggars. The lowness of interest, in all other countries a sign of wealth, is in us a proof of misery; there being no trade to employ any borrower. Hence alone comes the dearness of land, since the savers have no other way to lay out their money; hence the dearness of necessaries of life; because the tenants cannot afford to pay such extravagant rates for land (which they must take or go a-begging), without

raising the price of cattle and of corn, although themselves should live upon chaff. Hence our increase of building in this city; because workmen have nothing to do but to employ one another, and one-half of them are infallibly undone. Hence the daily increase of bankers, who may be a necessary evil in a trading country, but so ruinous in ours; who, for their private advantage, have sent away all our silver, and one-third of our gold; so that within three years past the running cash of the nation, which was about five hundred thousand pounds, is now less than two, and must daily diminish, unless we have liberty to coin, as well as that important kingdom, the Isle of Man, and the meanest principality in the German empire, as I before observed.

I have sometimes thought, that this paradox of the kingdom's growing rich, is chiefly owing to those worthy gentlemen the bankers; who, except some custom house officers, birds of passage, oppressive thrifty squires, and a few others who shall be nameless, are the only thriving people among us: and I have often wished that a law were enacted to hang up half a dozen bankers every year, and thereby interpose at least some short delay to the farther ruin of Ireland.

Ye are idle! ye are idle! answered Pharaoh to the Israelites, when they complained to his majesty that they were forced to make bricks without straw.

England enjoys every one of those advantages for enriching a nation, which I have above enumerated; and, into the bargain, a good million returned to them every year without labor or hazard, or one farthing value received on our side: but how long we shall be able to continue the payment, I am not under the least concern. One thing I know, that, when the hen is starved to death, there will be no more golden eggs.

I think it a little inhospitable, and others may call it a subtle piece of malice, that because there may be a dozen families in this town, able to entertain their English friends in a generous manner at their tables, their guests upon their return to England shall report that we wallow in riches and luxury.

Yet I confess I have known an hospital, where all the household officers grew rich; while the poor, for whose sake it was built, were almost starving for want of food and raiment.

To conclude: If Ireland be a rich and flourishing kingdom, its wealth and prosperity must be owing to certain causes, that are yet concealed from the whole race of mankind; and the effects are equally invisible. We need not wonder at strangers, when they deliver such paradoxes; but a native and inhabitant of this kingdom, who gives the same verdict, must be either ignorant to stupidity, or a man-pleaser at the expense of all honor, conscience, and truth.

Jonathan Swift: *Facts upon Irish Affairs.*

MATTER AND FORCE

Whether it be a consequence of long-continued development, or an endowment conferred once for all on man at his creation, we find him here gifted with a mind curious to know the causes of things, and surrounded by objects which excite its questionings and raise the desire for an explanation. It is related of a young prince of one of the Pacific islands, that when he first saw himself in a looking glass, he ran round the glass to see who was standing at the back. And thus it is with the general human intellect, as regards the phenomena of the external world. It wishes to get behind and learn the causes and connections of these phenomena. What is the sun, what is the earth, what should we see if we came to the edge of the earth and looked over? What is the meaning of thunder and lightning, of hail, rain, storm, and snow? Such questions presented themselves to early men, and by and by it was discovered that this desire for knowledge was not implanted in vain. After many trials it became evident that man's capacities were, so to speak, the complement of nature's facts, and that, within certain limits, the secret of the universe was open to the human understanding. It was found that the mind of man had the power of penetrating far beyond the boundaries of his

five senses; that the things which are seen in the material world depend for their action upon things unseen; in short, that besides the phenomena which address the senses, there are laws and principles and processes which do not address the senses at all, but which must be, and can be, spiritually discerned.

To the subjects which require this discernment belong the phenomena of molecular force. But to trace the genesis of the notions now entertained upon this subject, we have to go a long way back. In the drawing of a bow, the darting of a javelin, the throwing of a stone—in the lifting of burdens, and in personal combats, even savage man became acquainted with the operation of *force*. Ages of discipline, moreover, taught him foresight. He laid by at the proper season stores of food, thus obtaining time to look about him, and to become an observer, an enquirer. Two things which he noticed must have profoundly stirred his curiosity. He found that a kind of resin dropped from a certain tree possessed, when rubbed, the power of drawing light bodies to itself, and of causing them to cling to it; and he also found that a particular stone exerted a similar power over a particular kind of metal. I allude, of course, to electrified amber, and to the loadstone, or natural magnet, and its power to attract particles of iron. Previous experience of his own muscles had enabled our early enquirer to distinguish between a push and a pull. Augmented experience showed him that in the case of the magnet and the amber, pulls and pushes—attractions and repulsions—were also exerted; and, by a kind of poetic transfer, he applied to things external to himself, conceptions derived from himself. The magnet and the rubbed amber were credited with pushing and pulling, or, in other words, with exerting force.

In the time of the great Lord Bacon the margin of these pushes and pulls was vastly extended by Dr. Gilbert, a man probably of firmer scientific fibre, and of finer insight, than Bacon himself. Gilbert proved that a multitude of other bodies, when rubbed, exerted the power, which, thousands of years previously, had been observed in amber. In this way the notion of attraction and repulsion

in external nature was rendered familiar. It was a matter of experience that bodies, between which no visible link or connection existed, possessed the power of acting upon each other; and the action came to be technically called "action at a distance."

But out of experience in science there grows something finer than mere experience. Experience furnishes the soil for plants of higher growth; and this observation of action at a distance provided material for speculation upon the largest of problems. Bodies were observed to fall to the earth? Why should they do so? The earth was proved to revolve round the sun; and the moon to revolve round the earth. Why should they do so? What prevents them from flying straight off into space? Supposing it were ascertained that from a part of the earth's rocky crust a firmly fixed and tightly stretched chain started towards the sun, we might be inclined to conclude that the earth is held in its orbit by the chain—that the sun twirls the earth around him, as a boy twirls round his head a bullet at the end of a string. But why should the chain be needed? It is a fact of experience that bodies can attract each other at a distance, without the intervention of any chain. Why should not the sun and earth so attract each other? and why should not the fall of bodies from a height be the result of their attraction by the earth? Here then we reach one of those higher speculations which grow out of the fruitful soil of observation. Having started with the savage, and his sensations of muscular force we pass on to the observation of force exerted between a magnet and rubbed amber and the bodies which they attract, rising, by an unbroken growth of ideas, to a conception of the force by which sun and planets are held together.

This idea of attraction between sun and planets had become familiar in the time of Newton. He set himself to examine the attraction; and here, as elsewhere, we find the speculative mind falling back for its materials upon experience. It had been observed in the case of magnetic and electric bodies, that the nearer they were brought together the stronger was the force exerted between them;

while, by increasing the distance the force diminished until it became insensible. Hence the inference that the assumed pull between the earth and the sun would be influenced by their distance asunder. Guesses had been made as to the exact manner in which the force varied with the distance; but Newton supplemented the guess by the severe test of experiment and calculation. Comparing the pull of the earth upon a body close to its surface, with its pull upon the moon, 240,000 miles away, Newton rigidly established the law of variation with the distance. But on his way to this result Newton found room for other conceptions, some of which, indeed, constituted the necessary stepping stones to his result. The one that here concerns us is, that not only does the sun attract the earth, and the earth attract the sun, *as wholes*, but every particle of the sun attracts every particle of the earth, and the reverse. His conclusion was, that the attraction of the masses was simply the sum of the attractions of their constituent particles.

This result seems so obvious that you will perhaps wonder at my dwelling upon it; but it really marks a turning point in our notions of force. You have probably heard of certain philosophers of the ancient world named Democritus, Epicurus, and Lucretius. These men adopted, developed, and diffused the doctrine of atoms and molecules, which found its consummation at the hands of the illustrious John Dalton. But the Greek and Roman philosophers I have named, and their followers, up to the time of Newton, pictured their atoms as falling and flying through space, hitting each other, and clinging together by imaginary hooks and claws. They missed the central idea that atoms and molecules could come together not by being fortuitously knocked against each other, but by their own mutual attractions. This is one of the great steps taken by Newton. He familiarized the world with the conception of *molecular force*.

Newton was preceded by John Kepler who, by analyzing the astronomical observations of his master, Tycho Brahe, had actually found that the planets moved as they are now known to move. Kepler knew as much about the

motions of the planets as Newton did; in fact, Kepler taught Newton and the world generally the facts of planetary motion. But this was not enough. The question arose—Why should the facts be so? This was the great question for Newton, and it was the solution of it which renders his name and fame immortal. Starting from the principle that every particle of matter in the solar system attracts every other particle by a force which varies as the inverse square of the distance between the particles, he proved that the planetary motions must be what observation makes them to be. He showed that the moon fell towards the earth, and that the planets fell towards the sun, through the operation of the same force that pulls an apple from its tree. This all-pervading force, which forms the solder of the material universe, is called the force of gravitation.

Gravitation is a purely attractive force, but in electricity and magnetism, repulsion had always been seen to accompany attraction. Electricity and magnetism are double or *polar forces*. In the case of magnetism, experience soon pushed the mind beyond the bounds of experience, compelling it to conclude that the polarity of the magnet was resident in its molecules. I hold a magnetized strip of steel by its center, and find that one-half of the strip attracts, and the other half repels, the north end of a magnetic needle. I break the strip in the middle, find that this half, which a moment ago attracted throughout its entire length the north pole of a magnetic needle, is now divided into two new halves, one of which wholly attracts and the other of which wholly repels, the north pole of the needle. The half proves to be as perfect a magnet as the whole. You may break this half and go on till further breaking becomes impossible through the very smallness of the fragments; the smallest fragment is found endowed with two poles, and is, therefore, a perfect magnet. But you cannot stop there: you *imagine* where you cannot *experiment*; and reach the conclusion entertained by all scientific men, that the magnet which you see and feel is an assemblage of molecular magnets which you cannot see and feel, but which, as before stated, must be intellectually discerned.

Magnetism then is a polar force; and experience hints that a force of this kind may exert a certain structural power. It is known, for example, that iron filings strewn round a magnet arrange themselves in definite lines, called by some, "magnetic curves," and by others, "lines of magnetic force." Over two magnets now before me is spread a sheet of paper. Scattering iron filings over the paper, polar force comes into play, and every particle of the iron responds to that force. We have a kind of architectural effort—if I may use the term—exerted on the part of the iron filings. Here then is a fact of experience which, as you will see immediately, furnishes further material for the mind to operate upon, rendering it possible to attain intellectual clearness and repose, while speculating upon apparently remote phenomena.

The magnetic force has here acted upon particles visible to the eye. But, as already stated, there are numerous processes in nature which entirely elude the eye of the body, and must be figured by the eye of the mind. The processes of chemistry are examples of these. Long thinking and experimenting has led philosophers to conclude that matter is composed of atoms from which, whether separate or in combination, the whole material world is built up. The air we breathe, for example, is mainly a mechanical mixture of the atoms of oxygen and nitrogen. The water we drink is also composed of oxygen and hydrogen. But it differs from the air in this particular, that in water the oxygen and hydrogen are not mechanically mixed, but chemically combined. The atoms of oxygen and those of hydrogen exert enormous attractions on each other, so that when brought into sufficient proximity they rush together with an almost incredible force to form a chemical compound. But powerful as is the force with which these atoms lock themselves together, we have the means of tearing them asunder, and the agent by which we accomplish this may here receive a few moments' attention.

Into a vessel containing acidulated water I dip two strips of metal, the one being zinc and the other platinum, not permitting them to touch each other in the liquid.

I connect the two upper ends of the strips by a piece of copper wire. The wire is now the channel of what, for want of a better name, we call an "electric current." What the inner change of the wire is we do not know, but we do know that a change has occurred, by the external effects produced by the wire. Let me show you one or two of these effects. Before you is a series of ten vessels, each with its pair of metals, and I wish to get the added force of all ten. The arrangement is called a voltaic battery. I plunge a piece of copper wire among these iron filings; they refuse to cling to it. I employ the self-same wire to connect the two ends of the battery, and subject it to the same test. The iron filings now crowd round the wire and cling to it. I interrupt the current, and the filings immediately fall; the power of attraction continues only so long as the wire connects the two ends of the battery.

Here is a piece of similar wire, overspun with cotton, to prevent the contact of its various parts, and formed into a coil. I make the coil part of the wire which connects the two ends of the voltaic battery. By the attractive force with which it has become suddenly endowed it now empties this tool box of its iron nails. I twist a covered copper wire round this common poker; connecting the wire with the two ends of the voltaic battery, the poker is instantly transformed into a strong magnet. Two flat spirals are here suspended facing each other, about six inches apart. Sending a current through both spirals, they clash suddenly together; reversing what is called the direction of the current in one of the spirals, they fly asunder. All these effects are due to the power which we name an electric current, and which we figure as flowing through the wire when the circuit is complete.

By the same agent we tear asunder the locked atoms of a chemical compound. Into this small cell, containing water, dip two thin wires. From the small battery I send an electric current from wire to wire. Bubbles of gas rise immediately from each of them, and these are the two gases of which the water is composed. The oxygen is always liberated on the one wire, the hydrogen on the other. The gases may be collected either separately or

mixed. I place upon my hand a soap bubble filled with the mixture of both gases. Applying a taper to the bubble, a loud explosion is heard. The atoms have rushed together with detonation, and without injury to my hand, and the water from which they were extracted is the result of their reunion.

One consequence of the rushing together of the atoms is the development of heat. What is this heat? Here are two ivory balls suspended from the same point of support by two short strings. I draw them thus apart and then liberate them. They clash together, but, by virtue of their elasticity, they quickly recoil, and a sharp vibratory rattle succeeds their collision. This experiment will enable you to figure to your mind a pair of clashing atoms. We have in the first place, a motion of the one atom towards the other—a motion of translation, as it is usually called—then a recoil, and afterwards a motion of vibration. To this vibratory motion we give the name of heat. Thus, three things are to be kept before the mind—first, the atoms themselves; secondly, the force with which they attract each other; and thirdly, the motion consequent upon the exertion of that force. This motion must be figured first as a motion of translation, and then as a motion of vibration, to which latter we give the name of heat. For some time after the act of combination this motion is so violent as to prevent the molecules from coming together, the water being maintained in a state of vapor. But as the vapor cools, or, in other words, loses its motion, the molecules coalesce to form a liquid.

And now we approach a new and wonderful display of force. As long as the substance remains in a liquid or vaporous condition, the play of this force is altogether masked and hidden. But as the heat is gradually withdrawn, the molecules prepare for new arrangements and combinations. Solid crystals of water are at length formed, to which we give the familiar name of ice. Looking at these beautiful edifices and their internal structure, the pondering mind has forced upon it the question, How are they built up? We have obtained clear conceptions of polar force; and we infer from our broken magnet that

polar force may be resident in the molecules or smallest particles of matter, and that by the play of this force structural arrangement is possible. What, in relation to our present question, is the natural action of a mind furnished with this knowledge? It is compelled to transcend experience, and endow the atoms and molecules of which crystals are built with definite poles whence issue attractions and repulsions. In virtue of these forces some poles are drawn together, while some retreat from each other; atom is added to atom, and molecule to molecule, not boisterously or fortuitously, but silently and symmetrically, and in accordance with laws more rigid than those which guide a human builder when he places his materials together. Imagine the bricks and stones of this town of Dundee endowed with structural power. Imagine them attracting and repelling, and arranging themselves into streets and houses—would not that be wonderful? Hardly less wonderful is the play of force by which the molecules of water build themselves into sheets of ice which every winter roof your ponds and lakes.

If I could show you the actual progress of this molecular architecture, its beauty would delight and astonish you. A reversal of the process of crystallization may be actually shown. The molecules of a piece of ice may be taken asunder before your eyes; and from the manner in which they separate, you may to some extent infer the manner in which they go together. When a beam is sent from our electric lamp through a plate of glass, a portion of the beam is intercepted, and the glass is warmed by the portion thus retained within it. When the beam is sent through a plate of ice, a portion of the beam is also absorbed; but instead of warming the ice, the intercepted heat melts it internally. It is to the delicate silent action of the beam within the ice that I now wish to call your attention. Upon the screen is thrown a magnified image of the slab of ice: the light of the beam passes freely through the ice without melting it, and enables us to form the image; but the heat is in great part intercepted, and that heat now applies itself to the work of internal liquefaction. Selecting certain points for attack, round about

those points the beam works silently, undoing the crystalline architecture and reducing to the freedom of liquidity molecules which had been previously locked in a solid embrace. The liquefied spaces are rendered visible by strong illumination. Observe those six-petaled flowers breaking out over the white surface, and expanding in size as the action of the beam continues. These flowers are liquefied ice. Under the action of the heat the molecules of the crystals fall asunder, so as to leave behind them these exquisite forms. We have here a process of demolition which clearly reveals the reverse process of construction. In this fashion, and in strict accordance with this hexagonal type, every ice molecule takes its place upon our ponds and lakes during the frosts of winter. To use the language of an American poet, "the atoms march in tune," moving to the music of law, which thus renders the commonest substance in nature a miracle of beauty.

Those fern-like forms, which on a frosty morning overspread your window panes, illustrate the action of the same force. Breathe upon such a pane before the fires are lighted, and reduce the solid crystalline film to the liquid condition; then watch its subsequent resolidification. You will see it all the better if you look at it through a common magnifying glass. After you have ceased breathing, the film, abandoned to the action of its own forces, appears for a moment to be alive. Lines of motion run through it; molecule closes with molecule, until finally the whole film passes from the state of liquidity, through this state of motion, to its final crystalline repose.

I can show you something similar. Over a piece of perfectly clean glass I pour a little water in which certain crystals have been dissolved. A film of the solution clings to the glass. By means of a microscope and a lamp, an image of the plate of glass is thrown upon the screen. The beam of the lamp, besides illuminating the glass, also heats it; evaporation sets in, and at a certain moment, when the solution has become supersaturated, splendid branches of crystal shoot out over the screen. A dozen square feet of surface are now covered by those beautiful

forms. With another solution we obtain crystalline spears feathered right and left by other spears. From distant nuclei in the middle of the field of view the spears shoot with magical rapidity in all directions. The film of water on a window pane on a frosty morning exhibits effects quite as wonderful as these. Latent in these formless solutions, latent in every drop of water, lies this marvelous structural power, which only requires the withdrawal of opposing forces to bring it into action.

The clear liquid now held up before you is a solution of nitrate of silver—a compound of silver and nitric acid. When an electric current is sent through this liquid the silver is severed from the acid, as the hydrogen was separated from the oxygen in a former experiment; and I would ask you to observe how the metal behaves when its molecules are thus successively set free. The image of the cell, and of the two wires which dip into the liquid of the cell, are now clearly shown upon the screen. Let us close the circuit, and send the current through the liquid. From one of the wires a beautiful silver tree commences immediately to sprout. Branches of the metal are thrown out, and umbrageous foliage loads the branches. You have here a growth, apparently as wonderful as that of any vegetable, perfected in a minute before your eyes. Substituting for the nitrate of silver acetate of lead, which is a compound of lead and acetic acid, the electric current severs the lead from the acid, and you see the metal slowly branching into exquisite metallic ferns, the fronds of which, as they become too heavy, break from their roots and fall to the bottom of the cell.

These experiments show that the common matter of our earth—"brute matter," as Dr. Young, in his *Night Thoughts*, is pleased to call it—when its atoms and molecules are permitted to bring their forces into free play, arranges itself, under the operation of these forces, into forms which rival in beauty those of the vegetable world. And what is the vegetable world itself, but the result of the complex play of these molecular forces? Here, as elsewhere throughout nature, if matter moves it is force that moves it, and if a certain structure, vegetable or mineral,

is produced, it is through the operation of the forces exerted between the atoms and molecules.

The solid matter of which our lead and silver trees were formed was, in the first instance, disguised in a transparent liquid; the solid matter of which our woods and forests are composed is also for the most part disguised in a transparent gas, which is mixed in small quantities with the air of our atmosphere. This gas is formed by the union of carbon and oxygen, and is called carbonic acid gas. The carbonic acid of the air being subjected to an action somewhat analogous to that of the electric current in the case of our lead and silver solutions, has its carbon liberated and deposited as woody fibre. The watery vapor of the air is subjected to similar action; its hydrogen is liberated from its oxygen, and lies down side by side with the carbon in the tissues of the tree. The oxygen in both cases is permitted to wander away into the atmosphere. But what is it in nature that plays the part of the electric current in our experiments, tearing asunder the locked atoms of carbon, oxygen, and hydrogen? The rays of the sun. The leaves of plants which absorb both the carbonic acid and the aqueous vapor of the air, answer to the cells in which our decompositions took place. And just as the molecular attractions of the silver and the lead found expression in those beautiful branching forms seen in our experiments, so do the molecular attractions of the liberated carbon and hydrogen find expression in the architecture of grasses, plants, and trees.

In the fall of a cataract and the rush of the wind we have examples of mechanical power. In the combinations of chemistry and in the formation of crystals and vegetables we have examples of molecular power. You have learned how the atoms of oxygen and hydrogen rush together to form water. I have not thought it necessary to dwell upon the mighty mechanical energy of their act of combination; and it may be said, in passing, that the clashing together of one pound of hydrogen and eight pounds of oxygen to form nine pounds of aqueous vapor, is greater than the shock of a weight of 1,000 tons falling from a height of twenty feet against the earth. Now, in

order that the atoms of oxygen and hydrogen should rise by their mutual attractions to the velocity corresponding to this enormous mechanical effect, a certain distance must exist between the particles. It is in rushing over this that the velocity is attained.

This idea of distance between the attracting atoms is of the highest importance in our conception to the system of the world. For the matter of the world may be classified under two distinct heads: atoms and molecules which have already combined and thus satisfied their mutual attractions, and atoms and molecules which have not yet combined, and whose mutual attractions are, therefore, unsatisfied. Now, as regards motive power, we are entirely dependent on atoms and molecules of the latter kind. Their attractions can produce motion, because sufficient distance intervenes between the attracting atoms, and it is this atomic motion that we utilize in our machines. Thus we can get power out of oxygen and hydrogen by the act of their union; but once they are combined, and once the vibratory motion consequent on their combination has been expended, no further power can be got out of their mutual attraction. As dynamic agents they are dead. The materials of the earth's crust consist for the most part of substances whose atoms have already closed in chemical union—whose mutual attractions are satisfied. Granite, for instance, is a widely diffused substance; but granite consists, in great part, of silicon, oxygen, potassium, calcium, and aluminum, whose atoms united long ago, and are therefore dead. Limestone is composed of carbon, oxygen, and calcium, the atoms of which have already closed in chemical union, and are therefore finally at rest. In this way we might go over nearly the whole of the materials of the earth's crust, and satisfy ourselves that though they were sources of power in ages past, and long before any creature appeared on the earth capable of turning their power to account, they are sources of power no longer.

A few exceptions to the general state of union of the molecules of the earth's crust—vast in relation to us, but trivial in comparison to the total store of which they are the residue—still remain. They constitute our main source

of motive power. By far the most important of these are our beds of coal. Distance still intervenes between the atoms of carbon and those of atmospheric oxygen, across which the atoms may be urged by their mutual attractions; and we can utilize the motion thus produced. Once the carbon and the oxygen have rushed together, so as to form carbonic acid, their mutual attractions are satisfied; and, while they continue in this condition, as dynamic agents they are dead. Our woods and forests are also sources of mechanical energy, because they have the power of uniting with the atmospheric oxygen. Passing from plants to animals, we find that the source of motive power just referred to is also the source of muscular power. A horse can perform work, and so can a man; but this work is at bottom the molecular work of the transmuted food and the oxygen of the air. We inhale this vital gas, and bring it into sufficiently close proximity with the carbon and the hydrogen of the body. These unite in obedience to their mutual attractions; and their motion toward each other, properly turned to account by the wonderful mechanism of the body, becomes muscular action.

One fundamental thought pervades all these statements: there is one tap root from which they all spring. That is the ancient maxim that out of nothing nothing comes; that neither in the organic world nor in the inorganic is power produced without the expenditure of power; that neither in the plant nor in the animal is there a creation of force or motion. Trees grow, and so do men and horses; and here we have new power incessantly introduced upon the earth. But its source, as I have already stated, is the sun. It is the sun that separates the carbon from the oxygen of the carbonic acid, and thus enables them to recombine. Whether they recombine in the furnace of the steam engine or in the animal body, the origin of the power they produce is the same. In this sense we are all "souls of fire and children of the sun." But, as remarked by Helmholtz, we must be content to share our celestial pedigree with the meanest of living things.

John Tyndall: *Fragments of Science*. (Reprinted by permission of D. Appleton and Company.)

THE PRESENT CONDITION OF ORGANIC NATURE

When it was my duty to consider what subject I would select for the six lectures which I shall now have the pleasure of delivering to you, it occurred to me that I could not do better than endeavor to put before you in a true light, or in what I might perhaps with more modesty call, that which I conceive myself to be the true light, the position of a book which has been more praised and more abused, perhaps, than any book which has appeared for some years—I mean Mr. Darwin's work on the "Origin of Species." That work, I doubt not, many of you have read; for I know the inquiring spirit which is rife among you. At any rate, all of you will have heard of it—some by one kind of report and some by another kind of report; the attention of all and the curiosity of all have been probably more or less excited on the subject of that work. All I can do, and all I shall attempt to do, is to put before you that kind of judgment which has been formed by a man, who, of course, is liable to judge erroneously; but at any rate, of one whose business and profession it is to form judgments upon questions of this nature.

And here, as it will always happen when dealing with an extensive subject, the greater part of my course—if, indeed, so small a number of lectures can be properly called a course—must be devoted to preliminary matters, or rather to a statement of those facts and of those principles which the work itself dwells upon, and brings more or less directly before us. I have no right to suppose that all or any of you are naturalists; and even if you were, the misconceptions and misunderstandings prevalent even among naturalists on these matters would make it desirable that I should take the course I now propose to take—that I should start from the beginning—that I should endeavor to point out what is the existing state of the organic world—that I should point out its past condition—that I should state what is the precise nature of the undertaking which Mr. Darwin has taken in hand; that I

should endeavor to show you what are the only methods by which that undertaking can be brought to an issue, and to point out to you how far the author of the work in question has satisfied those conditions, how far he has not satisfied them, how far they are satisfiable by man, and how far they are not satisfiable by man.

Tonight, in taking up the first part of the question, I shall endeavor to put before you a sort of broad notion of our knowledge of the condition of the living world. There are many ways of doing this. I might deal with it pictorially and graphically. Following the example of Humboldt in his "Aspects of Nature," I might endeavor to point out the infinite variety of organic life in every mode of its existence, with reference to the variations of climate and the like; and such an attempt would be fraught with interest to us all; but considering the subject before us, such a course would not be that best calculated to assist us. In an argument of this kind we must go further and dig deeper into the matter; we must endeavor to look into the foundations of living nature, if I may so say, and discover the principles involved in some of her most secret operations. I propose, therefore, in the first place, to take some ordinary animal with which you are all familiar, and, by easily comprehensible and obvious examples drawn from it, to show what are the kind of problems which living beings in general lay before us; and I shall then show you that the same problems are laid open to us by all kinds of living beings. But, first, let me say in what sense I have used the words "organic nature." In speaking of the causes which lead to our present knowledge of organic nature, I have used it almost as an equivalent of the word "living," and for this reason—that in almost all living beings you can distinguish several distinct portions set apart to do particular things and work in a particular way. These are termed "organs," and the whole together is called "organic." And as it is universally characteristic of them, the term "organic" has been very conveniently employed to denote the whole of living nature,—the whole of the plant world, and the whole of the animal world.

Few animals can be more familiar to you than that whose skeleton is shown on our diagram. You need not bother yourselves with this "*Equus caballus*" written under it; that is only the Latin name of it, and does not make it any better. It simply means the common Horse. Suppose we wish to understand all about the Horse. Our first object must be to study the structure of the animal. The whole of his body is enclosed within a hide, a skin covered with hair; and if that hide or skin be taken off, we find a great mass of flesh, or what is technically called muscle, being the substance which by its power of contraction enables the animal to move. These muscles move the hard parts one upon the other, and so give that strength and power of motion which renders the Horse so useful to us in the performance of those services in which we employ him.

And then, on separating and removing the whole of this skin and flesh, you have a great series of bones, hard structures, bound together with ligaments, and forming the skeleton which is represented here.

In that skeleton there are a number of parts to be recognized. The long series of bones, beginning from the skull and ending in the tail, is called the spine, and those in front are the ribs; and then there are two pairs of limbs, one before and one behind; and these are what we all know as the forelegs and the hindlegs. If we pursue our researches into the interior of this animal, we find within the framework of the skeleton a great cavity, or rather I should say, two great cavities,—one cavity beginning in the skull and running through the neck bones, along the spine, and ending in the tail, containing the brain and the spinal marrow, which are extremely important organs. The second great cavity, commencing with the mouth, contains the gullet, the stomach, the long intestine, and all the rest of those internal apparatus which are essential for digestion; and then in the same great cavity, there are lodged the heart and all the great vessels going from it; and, besides that, the organs of respiration—the lungs; and then the kidneys, and the organs of reproduction, and so on. Let us now endeavor to reduce this notion of a horse

that we now have, to some such kind of simple expression as can be at once, and without difficulty, retained in the

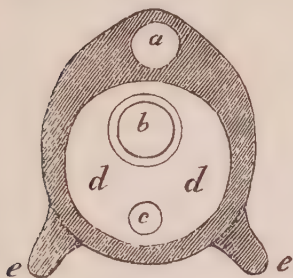


FIG. 1

mind, apart from all minor details. If I make a transverse section, that is, if I were to saw a dead horse across, I should find that, if I left out the details, and supposing I took my section through the anterior region, and through the forelimbs, I should have here this kind of section of the body (Fig. 1). Here would be the upper part of the animal—that great mass

of bones that we spoke of as the spine (*a*, Fig. 1). Here I should have the alimentary canal (*b*, Fig. 1). Here I should have the heart (*c*, Fig. 1); and then you see, there would be a kind of double tube, the whole being enclosed within the hide; the spinal marrow would be placed in the upper tube (*a*, Fig. 1), and in the lower tube (*d d*, Fig. 1), there would be the alimentary canal (*b*), and the heart (*c*); and here I shall have the legs proceeding from each side. For simplicity's sake, I represent them merely as stumps (*e e*, Fig. 1). Now that is a horse—as mathematicians would say—reduced to its most simple expression. Carry that in your minds, if you please, as a simplified idea of the structure of the Horse. The considerations which I have now put before you belong to what we technically call the “anatomy” of the Horse. Now, suppose we go to work upon these several parts—flesh and hair, and skin and bone, and lay open these various organs with our scalpels, and examine them by means of our magnifying glasses, and see what we can make of them. We shall find that the flesh is made up of bundles of strong fibres. The brain and nerves, too, we shall find, are made up of fibres, and these queer looking things that are called ganglionic corpuscles. If we take a slice of the bone and examine it, we shall find that it is very like this diagram of a section of the bone of an ostrich, though differing, of course, in some details; and if we take any part whatsoever

of the tissue, and examine it, we shall find it all has a minute structure, visible only under the microscope. All these parts constitute microscopic anatomy or "Histology." These



FIG. 2

parts are constantly being changed; and every part is constantly growing, decaying, and being replaced during the life of the animal. The tissue is constantly replaced by new material; and if you go back to the young state of the tissue in the case of muscle, or in the case of skin, or any of the organs I have mentioned, you will find that they all come under the same condition. Every one of these microscopic filaments and fibres (I now speak merely of the general character of the whole process)—every one of these parts—could be traced down to some modification of a tissue which can be readily divided into little particles of fleshy matter, of that substance which is composed of the chemical elements, carbon, hydrogen, oxygen, and nitrogen, having such a shape as this (Fig. 2). These particles, into which all primitive tissues break up, are called cells. If I were to make a section of a piece of the skin of my hand, I should find that it was made up of these cells. If I examine the fibres which form the various organs of all living animals, I should find that all of them, at one time or other, had been formed out of a substance consisting of similar elements; so that you see, just as we reduced the whole body in the gross to that sort of simple expression given in Fig. 1, so we may reduce the whole of the microscopic structural elements to a form of even greater simplicity; just as the plan of the whole body may be so represented in a sense (Fig. 1), so the primary structure of every tissue may be represented by a mass of cells (Fig. 2).

Having thus, in this sort of general way, sketched to you what I may call, perhaps, the architecture of the body of the Horse (what we term technically its Morphology), I must now turn to another aspect. A horse is not a mere dead structure: it is an active, living, working machine. Hitherto we have, as it were, been looking at a steam engine with the fires out, and nothing in the boiler; but

the body of the living animal is a beautifully formed active machine, and every part has its different work to do in the working of that machine, which is what we call its life. The Horse, if you see him after his day's work is done, is cropping the grass in the fields, as it may be, or munching the oats in his stable. What is he doing? His jaws are working as a mill—and a very complex mill too—grinding the corn, or crushing the grass to a pulp. As soon as that operation has taken place, the food is passed down to the stomach, and there it is mixed with the chemical fluid called the gastric juice, a substance which has the peculiar property of making soluble and dissolving out the nutritious matter in the grass, and leaving behind those parts which are not nutritious; so that you have, first, the mill, then a sort of chemical digester; and then the food, thus partially dissolved, is carried back by the muscular contractions of the intestines into the hinder parts of the body, while the soluble portions are taken up into the blood. The blood is contained in a vast system of pipes, spreading through the whole body, connected with a force pump,—the heart,—which, by its position and by the contractions of its valves, keeps the blood constantly circulating in one direction, never allowing it to rest; and then, by means of this circulation of the blood, laden as it is with the products of digestion, the skin, the flesh, the hair, and every other part of the body, draws from it that which it wants, and every one of these organs derives those materials which are necessary to enable it to do its work.

The action of each of these organs, the performance of each of these various duties, involve in their operation a continual absorption of the matters necessary for their support, from the blood, and a constant formation of waste products, which are returned to the blood, and conveyed by it to the lungs and the kidneys, which are organs that have allotted to them the office of extracting, separating, and getting rid of these waste products; and thus the general nourishment, labor, and repair of the whole machine is kept up with order and regularity. But not only is it a machine which feeds and appropriates to its own support the nourishment necessary to its existence—

it is an engine for locomotive purposes. The Horse desires to go from one place to another; and to enable it to do this, it has those strong contractile bundles of muscles attached to the bones of its limbs, which are put in motion by means of a sort of telegraphic apparatus formed by the brain and the great spinal cord running through the spine or backbone; and to this spinal cord are attached a number of fibres termed nerves, which proceed to all parts of the structure. By means of these the eyes, nose, tongue and skin—all the organs of perception—transmit impressions or sensations to the brain, which acts as a sort of great central telegraph office, receiving impressions and sending messages to all parts of the body, and putting in motion the muscles necessary to accomplish any movement that may be desired. So that you have here an extremely complex and beautifully proportioned machine, with all its parts working harmoniously together towards one common object—the preservation of the life of the animal.

Now, note this: the Horse makes up its waste by feeding, and its food is grass or oats, or perhaps other vegetable products; therefore, in the long run, the source of all this complex machinery lies in the vegetable kingdom. But where does the grass, or the oat, or any other plant, obtain this nourishing, food producing material? At first it is a little seed, which soon begins to draw into itself from the earth and the surrounding air matters which in themselves contain no vital properties whatever; it absorbs into its own substance water, an inorganic body; it draws into its substance carbonic acid, an inorganic matter; and ammonia, another inorganic matter, found in the air; and then, by some wonderful chemical process, the details of which chemists do not yet understand, though they are near foreshadowing them, it combines them into one substance, which is known to us as “protein,” a complex compound of carbon, hydrogen, oxygen, and nitrogen, which alone possesses the property of manifesting vitality and of permanently supporting animal life. So that, you see, the waste products of the animal economy, the effete materials which are continually being thrown off by all living beings, in the form of organic matters, are

constantly replaced by supplies of the necessary repairing and rebuilding materials drawn from the plants, which in their turn manufacture them, so to speak, by a mysterious combination of those same inorganic materials.

Let us trace out the history of the Horse in another direction. After a certain time, as the result of sickness or disease, the effect of accident, or the consequence of old age, sooner or later, the animal dies. The multitudinous operations of this beautiful mechanism flag in their performance, the Horse loses its vigor, and after passing through the curious series of changes comprised in its formation and preservation, it finally decays, and ends its life by going back into that inorganic world from which all but an inappreciable fraction of its substance was derived. Its bones become mere carbonate and phosphate of lime; the matter of its flesh, and of its other parts, becomes, in the long run, converted into carbonic acid, into water, and into ammonia. You will now, perhaps, understand the curious relation of the animal with the plant, of the organic with the inorganic world, which is shown in this diagram.

The plant gathers these inorganic materials together and makes them up into its own substance. The animal eats the plant and appropriates the nutritious portions to its own sustenance, rejects and gets rid of the useless matters; and finally, the animal itself dies, and its whole body is decomposed and returned into the inorganic world. There is thus a constant circulation from one to the other, a continual formation of organic life from inorganic matters, and as constant a return of the matter of living bodies to the inorganic world; so that the materials of which our bodies are composed are largely, in all probability, the substances which constituted the matter of long extinct creations, but which have in the interval constituted a part of the inorganic world.

Thus we come to the conclusion, strange at first sight, that the matter constituting the living world is identical with that which forms the inorganic world. And not less true is it that, remarkable as are the powers or, in other words as are the forces which are exerted by living beings,

yet all these forces are either identical with those which exist in the inorganic world, or they are convertible into them; I mean in just the same sense as the researches of physical philosophers have shown that heat is convertible into electricity, that electricity is convertible into magnetism, magnetism into mechanical force or chemical force, and any one of them with the other, each being measurable in terms of the other,—even so, I say, that great law is applicable to the living world. Consider why is the skeleton of this horse capable of supporting the masses of flesh and the various organs forming the living

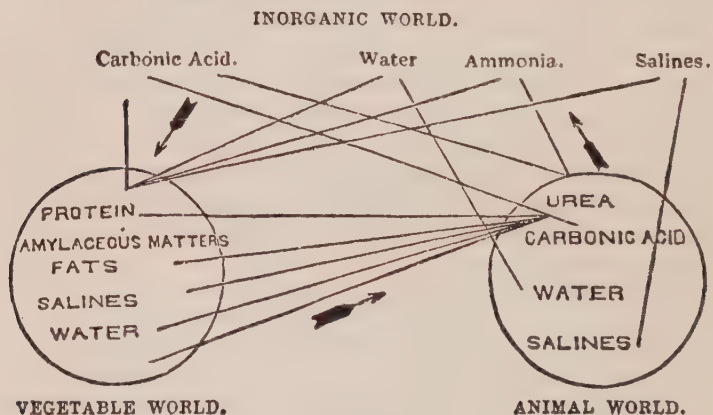


FIG. 3

body, unless it is because of the action of the same forces of cohesion which combines together the particles of matter composing this piece of chalk? What is there in the muscular contractile power of the animal but the force which is expressible, and which is in a certain sense convertible, into the force of gravity which it overcomes? Or, if you go to more hidden processes, in what does the process of digestion differ from those processes which are carried on in the laboratory of the chemist? Even if we take the more recondite and more complex operations of animal life—those of the nervous system, these of late years have been shown to be—I do not say identical in any

sense with the electrical processes—but this has been shown, that they are in some way or other associated with them; that is to say, that every amount of nervous action is accompanied by a certain amount of electrical disturbance in the particles of the nerves in which that nervous action is carried on. In this way the nervous action is related to electricity in the same way that heat is related to electricity; and the same sort of argument which demonstrates the two latter to be related to one another shows that the nervous forces are correlated to electricity; for the experiments of M. Dubois Reymond and others have shown that whenever a nerve is in a state of excitement, sending a message to the muscles or conveying an impression to the brain, there is a disturbance of the electrical condition of that nerve which does not exist at other times; and there are a number of other facts and phenomena of that sort; so that we come to the broad conclusion that not only as to living matter itself, but as to the forces that matter exerts, there is a close relationship between the organic and the inorganic world—the difference between them arising from the diverse combination and disposition of identical forces, and not from any primary diversity, so far as we can see.

I said just now that the Horse eventually died and became converted into the same inorganic substances from whence all but an inappreciable fraction of its substance demonstrably originated, so that the actual wanderings of matter are as remarkable as the transmigrations of the soul fabled by Indian tradition. But before death has occurred, in the one sex or the other, and in fact in both, certain products or parts of the organism have been set free, certain parts of the organisms of the two sexes have come into contact with one another, and from that conjunction, from that union which then takes place, there results the formation of a new being. At stated times the mare, from a particular part of the interior of her body, called the ovary, gets rid of a minute particle of matter comparable in all essential respects with that which we called a cell a little while since, which cell contains a kind of nucleus in its center, surrounded by a

clear space and by a viscid mass of protein substance (Fig. 2); and though it is different in appearance from the eggs which we are mostly acquainted with, it is really an egg. After a time this minute particle of matter, which may only be a small fraction of a grain in weight, undergoes a series of changes,—wonderful complex changes. Finally, upon its surface there is fashioned a little elevation, which afterwards becomes divided and marked by a groove. The lateral boundaries of the groove extend upwards and downwards, and at length give rise to a double tube. In the upper and smaller tube the spinal marrow and brain are fashioned; in the lower, the alimentary canal and heart; and at length two pairs of buds shoot out at the sides of the body, and they are the rudiments of the limbs. In fact a true drawing of a section of the embryo in this state would in all essential respects resemble that diagram of a horse reduced to its simplest expression, which I first placed before you (Fig. 1).

Slowly and gradually these changes take place. The whole of the body, at first, can be broken up into “cells,” which become in one place metamorphosed into muscle—in another place into gristle and bone—in another place into fibrous tissue—and in another into hair; every part becoming gradually and slowly fashioned, as if there were an artificer at work in each of these complex structures that I have mentioned. This embryo, as it is called, then passes into other conditions. I should tell you that there is a time when the embryos of neither dog, nor horse, nor porpoise, nor monkey, nor man, can be distinguished by any essential feature one from the other; there is a time when they each and all of them resemble this one of the Dog. But as development advances, all the parts acquire their specialty, till at length you have the embryo converted into the form of the parent from which it started. So that you see, this living animal, this horse, begins its existence as a minute particle of nitrogenous matter, which, being supplied with nutriment (derived, as I have shown, from the inorganic world), grows up according to the special type and construction of its parents, works and

undergoes a constant waste, and that waste is made good by nutriment derived from the inorganic world; the waste given off in this way being directly added to the inorganic world. Eventually the animal itself dies, and by the process of decomposition, its whole body is returned to those conditions of inorganic matter in which its substance originated.

This, then, is that which is true of every living form, from the lowest plant to the highest animal—to man himself. You might define the life of every one in exactly the same terms as those which I have now used; the difference between the highest and the lowest being simply in the complexity of the developmental changes, the variety of the structural forms, and the diversity of the physiological functions which are exerted by each.

If I were to take an oak tree, as a specimen of the plant world, I should find that it originated in an acorn, which, too, commenced in a cell; the acorn is placed in the ground, and it very speedily begins to absorb the inorganic matters I have named, adds enormously to its bulk, and we can see it, year after year, extending itself upward and downward, attracting and appropriating to itself inorganic materials, which it vivifies, and eventually, as it ripens, gives off its own proper acorns, which again run the same course. But I need not multiply examples,—from the highest to the lowest the essential features of life are the same as I have described in each of these cases.

So much then, for these particular features of the organic world, which you can understand and comprehend, so long as you confine yourself to one sort of living being, and study that only.

But as you know, horses are not the only living creatures in the world; and again, horses, like all other animals, have certain limits—are confined to a certain area on the surface of the earth on which we live,—and, as that is the simpler matter, I may take that first. In its wild state, and before the discovery of America, when the natural state of things was interfered with by the Spaniards, the Horse was only to be found in parts of the earth which are known to geographers as the Old World; that

is to say, you might meet with horses in Europe, Asia, or Africa; but there were none in Australia, and there were none whatsoever in the whole continent of America, from Labrador down to Cape Horn. This is an empirical fact, and it is what is called, stated in the way I have given it you, the "Geographical Distribution" of the Horse.

Why horses should be found in Europe, Asia, and Africa, and not in America, is not obvious; the explanation that the conditions of life in America are unfavorable to their existence, and that, therefore, they had not been created there, evidently does not apply; for when the invading Spaniards, or our own yeomen farmers, conveyed horses to these countries for their own use, they were found to thrive well and multiply very rapidly; and many are even now running wild in those countries, and in a perfectly natural condition. Now, suppose we were to do for every animal what we have here done for the Horse,—that is, to mark off and distinguish the particular district or region to which each belonged; and supposing we tabulated all these results, that would be called the Geographical Distribution of animals, while a corresponding study of plants would yield as a result the Geographical Distribution of plants.

I pass on from that now, as I merely wished to explain to you what I meant by the use of the term "Geographical Distribution." As I said, there is another aspect, and a much more important one, and that is, the relations of the various animals to one another. The Horse is a very well defined matter-of-fact sort of animal, and we are all pretty familiar with its structure. I dare say it may have struck you, that it resembles very much no other member of the animal kingdom, except perhaps the Zebra or the Ass. But let me ask you to look along these diagrams. Here is the skeleton of the Horse, and here the skeleton of the Dog. You will notice that we have in the Horse a skull, a backbone and ribs, shoulder blades and haunch bones. In the fore limb, one upper arm bone, two fore arm bones, wrist bones (wrongly called knee), and middle hand bones, ending in the three bones of a finger, the last of which is sheathed in the horny hoof of the forefoot: in the hind

limb, one thigh bone, two leg bones, ankle bones, and middle foot bones, ending in the three bones of a toe, the last of which is encased in the hoof of the hind foot. Now turn to the Dog's skeleton. We find identically the same bones, but more of them, there being more toes in each foot, and hence more toe bones.

Well, that is a very curious thing! The fact is that the Dog and the Horse—when one gets a look at them without the outward impediments of the skin—are found to be made in very much the same sort of fashion. And if I were to make a transverse section of the Dog, I should find the same organs that I have already shown you as forming parts of the Horse. Well, here is another skeleton—that of a kind of Lemur—you see he has just the same bones; and if I were to make a transverse section of it, it would be just the same again. In your mind's eye turn him round, so as to put his backbone in a position inclined obliquely upwards and forwards, just as in the next three diagrams, which represent the skeletons of an Orang, a Chimpanzee and a Gorilla, and you find you have no trouble in identifying the bones throughout; and lastly turn to the end of the series, the diagram representing a man's skeleton, and still you find no great structural feature essentially altered. There are the same bones in the same relations. From the Horse we pass on and on with gradual steps, until we arrive at last at the highest known forms. On the other hand, take the other line of diagrams, and pass from the Horse downwards in the scale to this fish; and still, though the modifications are vastly greater, the essential framework of the organization remains unchanged. Here, for instance, is a Porpoise; here is its strong backbone, with the cavity running through it, which contains the spinal cord; here are the ribs, here the shoulder blade; here is the little short upper arm bone, here are the two forearm bones, the wrist bone, and the finger bones.

Strange is it not, that the Porpoise should have in this queer-looking affair—its flapper (as it is called), the same fundamental elements as the fore leg of the Horse or the Dog, or the Ape or Man; and here you will notice a very

curious thing—the hinder limbs are absent. Now, let us make another jump. Let us go to the Codfish: here you see is the forearm, in this large pectoral fin—carrying your mind's eye onward from the flapper of the Porpoise. And here you have the hinder limbs restored in the shape of these ventral fins. If I were to make a transverse section of this, I should find just the same organs that we have before noticed. So that, you see, there comes out this strange conclusion as the result of our investigations, that the Horse, when examined and compared with other animals, is found by no means to stand alone in nature; but that there are an enormous number of other creatures which have backbones, ribs, and legs, and other parts arranged in the same general manner, and in all their formation exhibiting the same broad peculiarities.

I am sure that you cannot have followed me even in this extremely elementary exposition of the structural relations of animals, without seeing what I have been driving at all through, which is, to show you that, step by step, naturalists have come to the idea of a unity of plan, or conformity of construction, among animals which appeared at first sight to be extremely dissimilar.

And here you have evidence of such a unity of plan among all the animals which have backbones, and which we technically call *Vertebrata*. But there are multitudes of other animals, such as crabs, lobsters, spiders, and so on, which we term *Annulosa*. In these I could not point out to you the parts that correspond with those of the Horse—the backbone, for instance,—as they are constructed upon a very different principle, which is also common to all of them; that is to say, the Lobster, the Spider and the Centipede, have a common plan running through their whole arrangement, in just the same way that the Horse, the Dog, and the Porpoise assimilate to each other.

Yet other creatures—whelks, cuttlefishes, oysters, snails, and all their tribe (*Mollusca*)—resemble one another in the same way, but differ from both *Vertebrata* and *Annulosa*; and the like is true of the animals called *Coelenterata* (Polypes) and *Protozoa* (animalcules and sponges).

Now, by pursuing this sort of comparison, naturalists have arrived at the conviction that there are—some think five, and some seven—but certainly not more than the latter number—and perhaps it is simpler to assume five—distinct plans of constructions in the whole of the animal world; and that the hundreds of thousands of species of creatures on the surface of the earth, are all reducible to those five, or, at most, seven plans of organization.

But can we go no further than that? When one has got so far, one is tempted to go on a step and inquire whether we cannot go back yet further and bring down the whole to modifications of one primordial unit. The anatomist cannot do this; but if he call to his aid the study of development, he can do it. For we shall find that, distinct as those plans are, whether it be a porpoise or man, or lobster, or any of those other kinds I have mentioned, every one begins its existence with one and the same primitive forms,—that of the egg, consisting, as we have seen, of a nitrogenous substance, having a small particle or nucleus in the center of it. Furthermore, the earlier changes of each are substantially the same. And it is in this that lies that true “unity of organization” of the animal kingdom which has been guessed at and fancied for many years; but which it has been left to the present time to be demonstrated by the careful study of development. But is it possible to go another step further still, and to show that in the same way the whole of the organic world is reducible to one primitive condition of form? Is there among the plants the same primitive form of organization, and is that identical with that of the animal kingdom? The reply to that question, too, is not uncertain or doubtful. It is now proved that every plant begins its existence under the same form; that is to say, in that of a cell—a particle of nitrogenous matter having substantially the same conditions. So that if you trace back the oak to its first germ, or a man, or a horse, or lobster, or oyster, or any other animal you choose to name, you shall find each and all of these commencing their existence in forms essentially similar to each other: and, furthermore, that the first processes of growth, and many of the subsequent

modifications, are essentially the same in principle in almost all.

In conclusion, let me, in a few words, recapitulate the positions which I have laid down. And you must understand that I have not been talking mere theory; I have been speaking of matters which are as plainly demonstrable as the commonest propositions of Euclid—of facts that must form the basis of all speculations and beliefs in biological science. We have gradually traced down all organic forms, or, in other words, we have analyzed the present condition of animated nature, until we found that each species took its origin in a form similar to that under which all the others commenced their existence. We have found the whole of the vast array of living forms with which we are surrounded, constantly growing, increasing, decaying and disappearing; the animal constantly attracting, modifying, and applying to its sustenance the matter of the vegetable kingdom, which derived its support from the absorption and conversion of inorganic matter. And so constant and universal is this absorption, waste, and reproduction, that it may be said with perfect certainty that there is left in no one of our bodies at the present moment a millionth part of the matter of which they were originally formed! We have seen, again, that not only is the living matter derived from the inorganic world, but that the forces of that matter are all of them correlative with and convertible into those of inorganic nature.

This, for our present purposes, is the best view of the present condition of organic nature which I can lay before you: it gives you the great outlines of a vast picture, which you must fill up by your own study.

T. H. Huxley.

CURRER, ELLIS, AND ACTON BELL

It has been thought that all the works published under the names of Currer, Ellis, and Acton Bell, were, in reality, the production of one person. This mistake I endeavored to rectify by a few words of disclaimer prefixed to the third edition of "*Jane Eyre*." These, too, it appears, failed to

gain general credence, and now, on the occasion of a reprint of "Wuthering Heights" and "Agnes Grey," I am advised distinctly to state how the case really stands.

Indeed, I feel myself that it is time the obscurity attending those two names—Ellis and Acton—was done away. The little mystery, which formerly yielded some harmless pleasure, has lost its interest; circumstances are changed. It becomes, then, my duty to explain briefly the origin and authorship of the books written by Currer, Ellis and Acton Bell.

About five years ago, my two sisters and myself, after a somewhat prolonged period of separation, found ourselves reunited, and at home. Resident in a remote district, where education had made little progress, and where, consequently, there was no inducement to seek social intercourse beyond our own domestic circle, we were wholly dependent on ourselves and each other, on books and study, for the enjoyments and occupations of life. The highest stimulus, as well as the liveliest pleasure we had known from childhood upwards, lay in attempts at literary composition; formerly we used to show each other what we wrote, but of late years this habit of communication and consultation had been discontinued; hence it ensued, that we were mutually ignorant of the progress we might respectively have made.

One day in the autumn of 1845, I accidentally lighted on a MS. volume of verse in my sister Emily's handwriting. Of course, I was not surprised, knowing that she could and did write verse: I looked it over, and something more than surprise seized me,—a deep conviction that these were not common effusions, nor at all like the poetry women generally write. I thought them condensed and terse, vigorous and genuine. To my ear, they had also a peculiar music—wild, melancholy, and elevating.

My sister Emily was not a person of demonstrative character, nor one on the recesses of whose mind and feelings, even those nearest and dearest to her could, with impunity, intrude unlicensed; it took hours to reconcile her to the discovery I had made, and days to persuade her that such poems merited publication. I knew, however,

that a mind like hers could not be without some latent spark of honorable ambition, and refused to be discouraged in my attempts to fan that spark to flame.

Meantime, my younger sister quietly produced some of her own compositions, intimating that, since Emily's had given me pleasure, I might like to look at hers. I could not but be a partial judge, yet I thought that these verses, too, had a sweet sincere pathos of their own.

We had very early cherished the dream of one day becoming authors. This dream, never relinquished even when distance divided and absorbing tasks occupied us, now suddenly acquired strength and consistency: it took the character of a resolve. We agreed to arrange a small selection of our poems, and, if possible, get them printed. Averse to personal publicity, we veiled our own names under those of Currer, Ellis, and Acton Bell; the ambiguous choice being dictated by a sort of conscientious scruple at assuming Christian names positively masculine, while we did not like to declare ourselves women, because—without at that time suspecting that our mode of writing and thinking was not what is called “feminine”—we had a vague impression that authoresses are liable to be looked on with prejudice; we had noticed how critics sometimes use for their chastisement the weapon of personality, and for their reward, a flattery which is not true praise.

The bringing out of our little book was hard work. As was to be expected, neither we nor our poems were at all wanted; but for this we had been prepared at the outset; though inexperienced ourselves, we had read the experience of others. The great puzzle lay in the difficulty of getting answers of any kind from the publishers to whom we applied. Being greatly harassed by this obstacle, I ventured to apply to the Messrs. Chambers, of Edinburgh, for a word of advice; *they* may have forgotten the circumstance, but *I* have not, for from them I received a brief and business-like, but civil and sensible reply, on which we acted, and at last made a way.

The book was printed: it is scarcely known, and all of it that merits to be known are the poems of Ellis Bell. The fixed conviction I held, and hold, of the worth of these

poems has not indeed received the confirmation of much favorable criticism; but I must retain it notwithstanding.

Ill-success failed to crush us: the mere effort to succeed had given a wonderful zest to existence; it must be pursued. We each set to work on a prose tale: Ellis Bell produced "*Wuthering Heights*," Acton Bell "*Agnes Grey*," and Currer Bell also wrote a narrative in one volume. These MSS. were perseveringly obtruded upon various publishers for the space of a year and a half; usually, their fate was an ignominious and abrupt dismissal.

At last "*Wuthering Heights*" and "*Agnes Grey*" were accepted on terms somewhat impoverishing to the authors; Currer Bell's book found acceptance nowhere, nor any acknowledgment of merit, so that something like the chill of despair began to invade his heart. As a forlorn hope, he tried one publishing house more—Messrs. Smith, Elder & Co. Ere long, in a much shorter space than that on which experience had taught him to calculate—there came a letter, which he opened in the dreary expectation of finding two hard hopeless lines, intimating that Messrs. Smith, Elder & Co. "were not disposed to publish the MS.," and, instead, he took out of the envelope a letter of two pages. He read it trembling. It declined, indeed, to publish that tale, for business reasons, but it discussed its merits and demerits so courteously, so considerately, in a spirit so rational, with a discrimination so enlightened, that this very refusal cheered the author better than a vulgarly expressed acceptance would have done. It was added, that a work in three volumes would meet with careful attention.

I was just then completing "*Jane Eyre*," at which I had been working while the one volume tale was plodding its weary round in London: in three weeks I sent it off; friendly and skilful hands took it in. This was in the commencement of September, 1847; it came out before the close of the October following, while "*Wuthering Heights*" and "*Agnes Grey*," my sisters' works, which had already been in the press for months, still lingered under a different management.

They appeared at last. Critics failed to do them justice. The immature but very real powers revealed in "Wuthering Heights" were scarcely recognized; its import and nature were misunderstood; the identity of its author misrepresented; it was said that this was an earlier and ruder attempt of the same pen which had produced "Jane Eyre." Unjust and grievous error! We laughed at it at first, but I deeply lament it now. Hence, I fear, arose a prejudice against the book. That writer who could attempt to palm off an inferior and immature production under cover of one successful effort, must indeed be unduly eager after the secondary and sordid results of authorship, and pitiably indifferent to its true and honorable meed. If reviewers and the public truly believed this, no wonder that they looked darkly on the cheat.

Yet I must not be understood to make these things subject for reproach or complaint; I dare not do so; respect for my sister's memory forbids me. By her any such querulous manifestation would have been regarded as an unworthy and offensive weakness.

"The Tenant of Wildfell Hall," by Acton Bell, had likewise an unfavorable reception. At this I cannot wonder. The choice of subject was an entire mistake. Nothing less congruous with the writer's nature could be conceived. The motives which dictated this choice were pure, but, I think, slightly morbid. She had, in the course of her life, been called on to contemplate, near at hand, and for a long time, the terrible effects of talents misused and faculties abused; hers was naturally a sensitive, reserved, and dejected nature; what she saw sank very deeply into her mind; it did her harm. She brooded over it till she believed it to be a duty to reproduce every detail (of course with fictitious characters, incidents, and situations), as a warning to others. She hated her work, but would pursue it. When reasoned with on the subject, she regarded such reasonings as a temptation to self-indulgence. She must be honest, she must not varnish, soften or conceal. This well-meant resolution brought on her misconstruction, and some abuse, which she bore, as it was her custom to bear whatever was unpleasant, with mild, steady

patience. She was a very sincere and practical Christian, but the tinge of religious melancholy communicated a sad shape to her brief, blameless life.

Neither Ellis nor Acton allowed herself for one moment to sink under want of encouragement; energy nerved the one, and endurance upheld the other. They were both prepared to try again; I would fain think that hope and the sense of power was yet strong within them. But a great change approached: affliction came in that shape which to anticipate is dread: to look back on, grief. In the very heat and burden of the day, the laborers failed over their work.

My sister Emily first declined. The details of her illness are deep-branded in my memory, but to dwell on them, either in thought or narrative, is not in my power. Never in all her life had she lingered over any task that lay before her, and she did not linger now. She sank rapidly. She made haste to leave us. Yet, while physically she perished, mentally she grew stronger than we had yet known her. Day by day when I saw with what a front she met suffering, I looked on her with an anguish of wonder and love. I have seen nothing like it; but, indeed, I have never seen her parallel in anything. Stronger than a man, simpler than a child, her nature stood alone. The awful point was, that while full of ruth for others, on herself she had no pity; the spirit was inexorable to the flesh; from the trembling hand, the unnerved limbs, the faded eyes, the same service was exacted as they had rendered in health. To stand by and witness this, and not dare to remonstrate, was a pain no words can render.

Two cruel months of hope and fear passed painfully by, and the day came at last when the terrors and pains of death were to be undergone by this treasure, which had grown dearer and dearer to our hearts as it wasted before our eyes. Towards the decline of that day, we had nothing of Emily but her mortal remains as consumption left them. She died December 19, 1848.

We thought this enough: but we were utterly and presumptuously wrong. She was not buried ere Anne fell ill. She had not been committed to the grave a fortnight,

before we received distinct intimation that it was necessary to prepare our minds to see the younger sister go after the elder. Accordingly, she followed in the same path with slower step, and with a patience that equalled the other's fortitude. I have said that she was religious, and it was by leaning on those Christian doctrines in which she firmly believed, that she found support through her most painful journey. I witnessed their efficacy in her latest hour and greatest trial, and must bear my testimony to the calm triumph with which they brought her through. She died May 28, 1849.

What more shall I say about them? I cannot and need not say much more. In externals, they were two unobtrusive women; a perfectly secluded life gave them retiring manners and habits. In Emily's nature the extremes of vigor and simplicity seemed to meet. Under an unsophisticated culture, inartificial tastes, and an unpretending outside, lay a secret power and fire that might have informed the brain and kindled the veins of a hero; but she had no worldly wisdom; her powers were unadapted to the practical business of life: she would fail to defend her most manifest rights, to consult her most legitimate advantage. An interpreter ought always to have stood between her and the world. Her will was not very flexible, and it generally opposed her interests. Her temper was magnanimous, but warm and sudden; her spirit altogether unbending.

Anne's character was milder and more subdued; she wanted the power, the fire, the originality of her sister, but was well endowed with quiet virtues of her own. Long-suffering, self-denying, reflective, and intelligent, a constitutional reserve and taciturnity placed and kept her in the shade, and covered her mind, and especially her feelings, with a sort of nun-like veil, which was rarely lifted. Neither Emily nor Anne was learned; they had no thought of filling their pitchers at the well-spring of other minds; they always wrote from the impulse of nature, the dictates of intuition, and from such stores of observation as their limited experience had enabled them to amass. I may sum up all by saying that for strangers they were

nothing, for superficial observers less than nothing; but for those who had known them all their lives in the intimacy of close relationship, they were genuinely good and truly great.

This notice has been written, because I felt it a sacred duty to wipe the dust off their gravestones, and leave their dear names free from soil.

Charlotte Brontë: *Biographical Notice of Ellis and Acton Bell.*

THE EARLY CHARACTER OF HENRY VIII.

If Henry VIII. had died previous to the first agitation of the divorce, his loss would have been deplored as one of the heaviest misfortunes which had ever befallen the country; and he would have left a name which would have taken its place in history by the side of that of the Black Prince or the conqueror of Agincourt. Left at the most trying age with his character unformed, with the means at his disposal of gratifying every inclination, and married by his ministers when a boy to an unattractive woman far his senior, he had lived for thirty-six years almost without blame, and bore through England the reputation of an upright and virtuous king. Nature had been prodigal to him of her rarest gifts. In person he is said to have resembled his grandfather, Edward IV., who was the handsomest man in Europe. His form and bearing were princely; and amidst the easy freedom of his address, his manner remained majestic. No knight in England could match him in the tournament except the Duke of Suffolk; he drew with ease as strong a bow as was borne by any yeoman of his guard; and these powers were sustained in unfailing vigor, by a temperate habit and by constant exercise. Of his intellectual ability we are not left to judge from the suspicious panegyrics of his contemporaries: His state papers and letters may be placed by the side of those of Wolsey or of Cromwell, and they lose nothing in the comparison. Though they are broadly different, the perception is equally clear, the expression equally powerful, and they breathe throughout an irresist-

ible vigor of purpose. In addition to this he had a fine musical taste, carefully cultivated; he spoke and wrote in four languages; and his knowledge of a multitude of other subjects, with which his versatile ability made him conversant, would have formed the reputation of any ordinary man. He was among the best physicians of his age; he was his own engineer, inventing improvements in artillery, and new constructions in ship building; and this not with the condescending incapacity of a royal amateur, but with thorough workmanlike understanding. His reading was vast, especially in theology, which has been ridiculously ascribed by Lord Herbert to his father's intention of educating him for the Archbishopric of Canterbury: as if the scientific mastery of such a subject could have been acquired by a boy of twelve years of age, for he was no more when he became Prince of Wales. He must have studied theology with the full maturity of his intellect; and he had a fixed and perhaps unfortunate interest in the subject itself.

In all directions of human activity Henry displayed natural powers of the highest order, at the highest stretch of industrious culture. He was "attentive," as it is called, "to his religious duties," being present at the services in chapel two or three times a day with unfailing regularity, and showing to outward appearance a real sense of religious obligation in the energy and purity of his life. In private he was good humored and good natured. His letters to his secretaries, though never undignified, are simple, easy, and unrestrained; and the letters written by them to him are similarly plain and business-like, as if the writers knew that the person whom they were addressing disliked compliments, and chose to be treated as a man. Again, from their correspondence with one another, when they describe interviews with him, we gather the same pleasant impression. He seems to have been always kind, always considerate; inquiring into their private concerns with genuine interest, and winning, as a consequence, their warm and unaffected attachment.

As a ruler he had been eminently popular. All his wars had been successful. He had the splendid tastes in which

the English people most delighted, and he had substantially acted out his own theory of his duty which was expressed in the following words:

“Scripture taketh princes to be, as it were, fathers and nurses to their subjects, and by Scripture it appeareth that it appertaineth unto the office of princes to see that right religion and true doctrine be maintained and taught, and that their subjects may be well ruled and governed by good and just laws; and to provide and care for them that all things necessary for them may be plenteous; and that the people and commonweal may increase; and to defend them from oppression and invasion, as well within the realm as without; and to see that justice be administered unto them indifferently; and to hear benignly their complaints; and to show towards them, although they offend, fatherly pity.”

He had more than once been tried with insurrection, which he had soothed down without bloodshed, and extinguished in forgiveness; and London long remembered the great scene which followed “Evil May-day,” 1517, when the apprentices were brought down to Westminster Hall to receive their pardons. There had been a dangerous riot in the streets, which might have provoked a mild government to severity; but the king contented himself with punishing the five ringleaders, and four hundred other prisoners, after being paraded down the streets in white shirts with halters round their necks, were dismissed with an admonition.

It is certain that if, as I have said, he had died before the divorce was mooted, Henry VIII., like that Roman Emperor said by Tacitus to have been *consensu omnium dignus imperii nisi imperasset*, would have been considered by posterity as formed by Providence for the conduct of the Reformation, and his loss would have been deplored as a perpetual calamity. We must allow him, therefore, the benefit of his past career, and be careful to remember it, when interpreting his later actions. Not many men would have borne themselves through the same trials with the same integrity; but the circumstances of those trials had not tested the true defects in his moral constitution. Like

all princes of the Plantagenet blood, he was a person of most intense and imperious will. His impulses, in general nobly directed, had never known contradiction; and late in life, when his character was formed, he was forced into collision with difficulties with which the experience of discipline had not fitted him to contend. Education had done much for him, but his nature required more correction than his position had permitted, whilst unbroken prosperity and early independence of control had been his most serious misfortune. He had capacity, if his training had been equal to it, to be one of the greatest of men. With all his faults about him, he was still perhaps the greatest of his contemporaries; and the man best able of all living Englishmen to govern England, had been set to do it by the conditions of his birth.

James Anthony Froude: *History of England*.

BENSLEY AS MALVOLIO

The part of Malvolio, in *Twelfth Night*, was performed by Bensley with a richness and dignity, of which (to judge from some recent castings of that character) the very tradition must be worn out from the stage. . . . Malvolio is not essentially ludicrous. He becomes comic but by accident. He is cold, austere, repelling; but dignified, consistent, and, for what appears, rather of an over-stretched morality. Maria describes him as a sort of Puritan; and he might have worn his gold chain with honor in one of our old roundhead families But his morality and his manners are misplaced in Illyria. He is opposed to the proper *levities* of the piece, and falls in the unequal contest. Still his pride, or his gravity (call it which you will), is inherent, and native to the man, not mock or affected, which latter only are the fit objects to excite laughter. His quality is at the best unlovely, but neither buffoon nor contemptible. His bearing is lofty a little above his station, but probably not much above his deserts. We see no reason why he should not have been brave, honorable, accomplished. His careless committal of the ring to the

ground (which he was commissioned to restore to Cesario), bespeaks a generosity of birth and feeling. His dialect on all occasions is that of a gentleman, and a man of education. We must not confound him with the eternal old, low steward of comedy. He is master of the household to a great princess; a dignity probably conferred upon him for other respects than age or length of service. Olivia, at the first indication of his supposed madness, declares that she "would not have him miscarry for half of her dowry." Does this look as if the character was meant to appear little or insignificant? Once, indeed, she accuses him to his face—of what?—of being "sick of self-love"—but with a gentleness and considerateness which could not have been, if she had not thought that this particular infirmity shaded some virtues. His rebuke to the knight, and his sottish revellers, is sensible and spirited; and when we take into consideration the unprotected condition of his mistress, and the strict regard with which her state of real or dissembled mourning would draw the eyes of the world upon her house affairs, Malvolio might feel the honor of the family in some sort in his keeping; as it appears not that Olivia had any more brothers, or kinsmen, to look to it—for Sir Toby had dropped all such nice respects at the buttery hatch. That Malvolio was meant to be represented as possessing estimable qualities, the expression of the duke in his anxiety to have him reconciled, almost infers. "Pursue him, and entreat him to a peace." Even in his abused state of chains and darkness, a sort of greatness seems never to desert him. He argues highly and well with the supposed Sir Topas, and philosophises gallantly upon his straw.¹ There must have been some shadow of worth about the man; he must have been something more than a mere vapor—a thing of straw, or Jack in office—before Fabian and Maria could have ventured sending him upon a courting errand to Olivia. There was some consonancy (as he would say) in the undertaking, or the jest

¹Clown—What is the opinion of Pythagoras concerning wild fowl?

Mal.—That the soul of our grandam might haply inhabit a bird.

Clown—What thinkest thou of his opinion?

Mal.—I think nobly of the soul, and no way approve of his opinion.

would have been too bold even for that house of misrule.

Bensley, accordingly, threw over the part an air of Spanish loftiness. He looked, spake, and moved like an old Castilian. He was starch, spruce, opinionated, but his superstructure of pride seemed bottomed upon a sense of worth. There was something in it beyond the coxcomb. It was big and swelling, but you could not be sure that it was hollow. You might wish to see it taken down, but you felt that it was upon an elevation. He was magnificent from the outset; but when the decent sobrieties of the character began to give way, and the poison of self-love, in his conceit of the countess's affection, gradually to work, you would have thought that the hero of *La Mancha* in person stood before you. How he went smiling to himself! with what ineffable carelessness would he twirl his gold chain! what a dream it was! you were infected with the illusion, and did not wish that it should be removed! you had no room for laughter! if an unseasonable reflection of morality obtruded itself, it was a deep sense of the pitiable infirmity of man's nature, that can lay him open to such frenzies—but in truth you rather admired than pitied the lunacy while it lasted—you felt that an hour of such mistake was worth an age with the eyes open. Who would not wish to live but for a day in the conceit of such a lady's love as Olivia? Why, the duke would have given his principality but for a quarter of a minute, sleeping or waking, to have been so deluded. The man seemed to tread upon air, to taste manna, to walk with his head in the clouds, to mate Hyperion. O! shake not the castles of his pride—endure yet for a season bright moments of confidence—"stand still ye watches of the element," that Malvolio may be still in fancy fair Olivia's lord—but fate and retribution say no—I hear the mischievous titter of Maria—the witty taunts of Sir Toby—the still more insupportable triumph of the foolish knight—the counterfeit Sir Topas is unmasked—and "thus the whirligig of time," as the true clown hath it, "brings in his revenges." I confess that I never saw the catastrophe of this character, while Bensley played it, without a kind of tragic interest.

Charles Lamb: *The Essays of Elia*.

PENSIONS FOR EMPLOYES

There is no element in the American industrial system more hopeful than the occasional evidences of a spirit of mutual effort between employer and employe for the common good. Such an evidence is to be found in the Pension Bill for employes of the Boston and Maine Railroad, lately signed by the Governor of Massachusetts. This bill is important because it supplements the existing plan of savings bank insurance, already described in *The Outlook*, and because it may lead in other States to a sound and generous system of insurance and pensions for workmen, and it is especially noteworthy because it is thoroughly co-operative—co-operative in that it was enacted at the request of employes with the sympathetic aid of the railway officials; co-operative in that the pensions come from money contributed equally by employer and employe (except that the company undertakes to make an additional contribution at its discretion to meet the hardships which might otherwise fall upon those workers now already advanced in years and service); co-operative in that to put the system in effect a vote of two-thirds of the workmen and the official consent of the company must both be obtained, and co-operative also in management, as workmen and company are to have equal representation in the governing board. If the plan is carried out, some 27,000 employes will be affected; and as their consent has first been obtained, their contributions, made in the form of deductions from wages, will be, Mr. Louis D. Brandeis remarks, “obligatory contributions secured by democratic methods.” To illustrate the working of the plan concretely, let us take the case of Michael Flynn, track-walker: At present, when he becomes too old to work effectively, he is simply “fired,” and, if he has not laid up money, must be supported by his friends or the public; under the new plan he would receive a pension, which under the law cannot be less than two hundred dollars a year. It is hoped that eventually the pension will amount to half the average annual wages during the last ten years

of Michael's service; but the rate will be fixed, under the law, by the trustees of the pension fund in consultation with the railway. If Michael has been only a short time at work for the company, he cannot expect to get much, if anything; but if he is really an old and faithful workman, his pension will be substantial and he will have the satisfaction of feeling that half, or nearly half, of it has been the result of his own savings, hardly noticed by him as pay day after pay day has passed by. It is to be noticed that while, as we have said, the underlying principle of the bill is co-operative, once adopted it creates legal rights; thus Michael will receive, if he prematurely throws up his job, all the cash he has paid in and perhaps a little more, while his claim to a pension, if he stays on, may be enforced in the court, and is not a favor but a right. On the other hand, if Michael enters the company's employ after the plan is adopted, he positively *must* pay his dues; and the same is true if he had worked in the employ of the company before, unless, indeed, Michael was one of the persons who voted against the adoption of the system and within three months recorded his objections. This last privilege, called "the elective obligatory" clause, is a new feature in pension legislation, and shows how scrupulously personal rights have been observed to the last limit. Another feature of the scheme is that the funds are exempt from taxation and that the right to the pension cannot be assigned. On this point Mr. Brandeis comments as follows:

This is but an application of a broader purpose that underlies our whole agitation of wage earners' insurance. To make free citizens, we must have men financially independent, and that financial independence is only possible through a comprehensive system of insurance against the contingencies of sickness, accident, old age, or premature death. Independence, in fact, therefore involves prohibition of loss of the bare means of subsistence either through legal processes or voluntary act, just as much as loss of liberty through selling one's self into servitude.

From *The Outlook*.

FLEECING THE FILIPINOS

Last week the tariff discussion in the United States Senate reached the point where it had to provide for future trade with the Philippine Islands. By the pending bill our products are to be freely admitted to the Islands. As to the admittance of Philippine products to the United States, President Taft, when Secretary of War a year ago, recommended that legislation be adopted by Congress admitting the products of the Philippine Islands to the markets of the United States, with such reasonable limitations as may remove fear of interference with home tobacco and sugar interests. Hence the bill proposed the admission free of duty, of only a hundred and fifty million cigars, one million five hundred thousand pounds of filler tobacco, and three hundred thousand pounds of sugar. All other products would be admitted free. Despite the belief that a hundred and fifty million cigars represent less than half the present annual increase in the demand for domestic cigars, and therefore would not interfere with the domestic market, the Connecticut Senators proposed to fix the number of free cigars at seventy million, and to reduce the amount of filler tobacco to a million pounds. This proposition was opposed by Senator Root, of New York, who declared:

I, for one, sir, am not willing to vote for a bill which, in my judgment, secures to this great and powerful nation an advantage over the weak people of the Philippine Islands, and I am against the reduction, whether the Senator from Wisconsin [Mr. La Follette] or if all the committees of the Senate approve it. I shall vote against it.

Mr. Root properly defined our Philippine policy in proclaiming that—

The good faith, the good name, the honor of the American people are all pledged to lead the people of the Islands on by paths of growing prosperity and capacity for government to the point where they will be capable of supporting and governing themselves. We cannot fulfill that high duty by giving them money, as the Senator from Nevada [Mr. Newlands] would have us do. Gifts of money tend to reduce the independence of individual character. We cannot

fulfill that duty by making the Islands unsuccessful in business, by retarding and confining their industry. We can fulfill it only by giving to them the opportunities to grow in habits of industry, in the building up of national pride and national power, to grow in the accumulation of property and the diffusion of wealth lying at the foundation of civilization.

The "opportunities" mentioned by Mr. Root are thus utilized by us: We deny to the Filipinos the right to buy in the cheapest market. We force them to buy from us. And then we refuse them a free access to our markets for their products. In addition, we now order that but half the proposed limitation of one of their principal products shall come to us, for Senator Root was overwhelmingly outvoted by what he called "the particular and selfish interests." This is not a fulfillment of our promise of economic guidance to the Filipinos. It is a violation of National good faith and honor.

From *The Outlook*.

A BOOK REVIEW

The Serf. By Guy Thorne. New York: R. F. Fenno & Co.

This book, dedicated to the members of the National Liberal Club, is written with a certain animus which differentiates it from the merely literary historical fiction of the day. The author seeks deliberately to strip the tinsel glories from mediæval romance, and to paint feudal society for us as it really was. He has a decided theory of history:

"The only certain way in which it is possible to get at the inner meaning of a period of history, is by comparison of the attitude of an individual brain toward his time, and the attitude of a general type of brain. The individual with the point of view must, of course, be a known quantity."

Our enthusiast goes on to say that this is a method of extraordinary possibilities, concluding somewhat quaintly: "It combines the pleasures of the laboratory with the pleasures of psychology, and never was science so happily

wedded to art." The point is that we are to study the feudal institution through the eyes of a single serf, a man of natural nobility and form.

Having just finished reading a feudal romance *a-la-mode*, full of mediæval lingo lugged in for effect, and with an atmosphere obviously as false as fair, the present reviewer rubbed his eyes incredulously after a few pages of this forthright narrative. Realism and the middle ages had seemed as far asunder as the poles; yet here they met, or seemed to meet. The author has had, no doubt, his own romantic impulse; to celebrate those humble and forgotten masses who have been at best the footstools of all accredited mediæval heroes and heroines. He frequently leaves the straight path of his narrative in order to preach a modern doctrine of brotherhood. But what strikes one most is his ruthlessness in presenting the sordid and distressing aspects of the life of the mediæval baron. It was, he declares, "a bestial, malignant, inhuman time." Brutal manners and filthy habits of living were common to the aristocracy and the herd. "A dog kennel would hardly have suffered any one of our heroes and heroines. That is one reason why it is so difficult for the veracious historian to present his characters as they really were. It is hard to explain them, people are too accustomed to romance." Apart from its didactic quality the story has a good deal of force; Hyla the serf and his fortunes are worth following for their own sake.

From *The Nation*.

ON STYLE

Style is the physiognomy of the mind, and a safer index to character than the face. To imitate another man's style is like wearing a mask, which, be it never so fine, is not long in arousing disgust and abhorrence, because it is lifeless; so that even the ugliest living face is better. Hence those who write in Latin and copy the manner of ancient authors, may be said to speak through a mask; the reader, it is true, hears what they say, but he cannot observe their

physiognomy too; he cannot see their *style*. With the Latin works of writers who think for themselves, the case is different, and their style is visible; writers, I mean, who have not condescended to any sort of imitation, such as Scotus, Erigena, Petrarch, Bacon, Descartes, Spinoza, and many others. And affectation in style is like making grimaces. Further, the language in which a man writes is the physiognomy of the nation to which he belongs; and here there are many hard and fast differences, beginning from the language of the Greeks, down to that of the Caribbean islanders.

To form a provisional estimate of the value of a writer's productions, it is not directly necessary to know the subject on which he has thought, or what it is that he has said about it; that would imply a perusal of all his works. It will be enough, in the main, to know *how* he has thought. This, which means the essential temper or general quality of his mind, may be percisely determined by his style. A man's style shows the *formal* nature of all his thoughts—the formal nature which he can never change, be the subject or the character of his thoughts what it may: it is, as it were, the dough out of which all the contents of his mind are kneaded. When Eulenspiegel was asked how long it would take to walk to the next village, he gave the seemingly incongruous answer: *Walk*. He wanted to find out by the man's pace the distance he would cover in a given time. In the same way, when I have read a few pages of an author, I know fairly well how far he can bring me.

Every mediocre writer tries to mask his own natural style, because in his heart he knows the truth of what I am saying. He is thus forced, at the outset, to give up any attempt at being frank or naive—a privilege which is thereby reserved for superior minds, conscious of their own worth, and therefore sure of themselves. What I mean is that these everyday writers are absolutely unable to resolve upon writing just as they think; because they have a notion that, were they to do so, their work might possibly look very childish and simple. For all that, it would not be without its value. If they would only go honestly to work, and say, quite simply, the things they

have really thought, and just as they have thought them, these writers would be readable and, within their own proper sphere, even instructive.

But instead of that, they try to make the reader believe that their thoughts have gone much further and deeper than is really the case. They say what they have to say in long sentences that wind about in a forced and unnatural way; they coin new words and write prolix periods which go round and round the thought and wrap it up in a sort of disguise. They tremble between the two separate aims of communicating what they want to say and of concealing it. Their object is to dress it up so that it may look learned or deep, in order to give people the impression that there is very much more in it than for the moment meets the eye. They either jot down their thoughts bit by bit, in short, ambiguous, and paradoxical sentences, which apparently mean much more than they say; or else they hold forth with a deluge of words and the most intolerable diffusiveness, as though no end of fuss were necessary to make the reader understand the deep meaning of their sentences, whereas it is some quite simple, if not actually trivial, idea; or, again, they try to write in some particular style which they have been pleased to take up and think very grand—a style, for example *par excellence* profound and scientific, where the reader is tormented to death by the narcotic effect of long-spun periods without a single idea in them; or it may be that they strive after an intellectual style—then it seems as though their object were to go crazy altogether; and so on in many other cases. All these endeavor to put off the *nascetur ridiculus mus*—to avoid showing the funny little creature that is born after such mighty throes—often make it difficult to know what it is that they really mean. And then, too, they write down words, nay, even whole sentences, without attaching any meaning to them, but hoping that someone else will get sense out of them.

And what is at the bottom of all this? Nothing but the untiring effort to sell words for thoughts; a mode of merchandise that is always trying to make fresh openings for itself, and by means of odd expressions, turns of phrase,

and combinations of every sort, whether new or used in a new sense, to produce the appearance of intellect in order to make up for the very painfully felt lack of it.

It is amusing to see how writers with this object in view will attempt first one mannerism and then another, as though they were putting on the mask of intellect! This mask may possibly deceive the inexperienced for a while, until it is seen to be a dead thing, with no life in it at all: it is then laughed at and exchanged for another. Such authors will at one moment write in a dithyrambic vein, as though they were tipsy; at another, nay, on the very next page, they will be pompous, severe, profoundly learned and prolix, stumbling on in the most cumbrous way and chopping up everything very small

And yet nothing is easier than to write so that no one can understand, just as, contrarily, nothing is more difficult than to express deep things in such a way that every one must necessarily grasp them. All the arts and tricks I have been mentioning are rendered superfluous if the author really has any brains; for that allows him to show himself as he is, and confirms to all time Horace's maxim that good sense is the source and origin of good style:

Scribendi recte sapere est et principium et fons.

But those authors I have named are like certain workers in metal, who try a hundred different compounds to take the place of gold—the only metal which can never have any substitute. Rather than do that, there is nothing against which a writer should be more upon his guard than the manifest endeavor to exhibit more intellect than he really has; because this makes the reader suspect that he possesses very little, since it is always the case that if a man affects anything, whatever it may be, it is just there that he is deficient.

That is why it is praise to an author to say that he is *naïve*; it means that he need not shrink from showing himself as he is. Generally speaking, to be naïve is to be attractive; while lack of naturalness is everywhere repulsive. As a matter of fact we find that every really great writer tries to express his thoughts as purely, clearly,

definitely and shortly as possible. Simplicity has always been held to be a mark of truth; it is also a mark of genius. Style receives its beauty from the thought it expresses; but with sham thinkers the thoughts are supposed to be fine because of the style. Style is nothing but the mere silhouette of thought; and an obscure or bad style means a dull or confused brain.

The first rule, then, for a good style is that *the author should have something to say*; nay, this is in itself almost all that is necessary. Ah, how much it means! The neglect of this rule is a fundamental trait of the philosophical writing, and, in fact, of all the reflective literature of my country. . . . These writers all let it be seen that they want to appear as though they had something to say, whereas they have nothing to say. Writing of this kind was brought in by the pseudo-philosophers at the Universities, and now it is current everywhere, even among the first literary notabilities of the age. It is the mother of that strained and vague style, where there seem to be two or even more meanings in the sentence; also of that prolix and cumbrous manner of expression, called *le stile empesé*; again, of that mere waste of words which consists in pouring them out like a flood; finally, of that trick of concealing the direst poverty of thought under a farrago of never-ending clatter, which clacks away like a windmill and quite stupifies one—stuff which a man may read for hours together without getting hold of a single clearly expressed and definite idea. However, people are easy-going, and they have formed the habit of reading page upon page of all sorts of such verbiage, without having any particular idea of what the author really means. They fancy it is all as it should be, and fail to discover that he is writing simply for writing's sake.

On the other hand, a good author, fertile in ideas, soon wins his reader's confidence that, when he writes, he has really and truly *something to say*; and this gives the intelligent reader patience to follow him with attention. Such an author, just because he really has something to say, will never fail to express himself in the simplest and most straightforward manner; because his object is to awake

the very same thought in the reader that he has in himself, and no other. So he will be able to affirm with Boileau that his thoughts are everywhere open to the light of day, and that his verse always says something, whether it says it well or ill: while of the writers previously described it may be asserted, in the words of the same poet, that they talk much and never say anything at all—*qui parlant beaucoup ne disent jamais rien*.

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The very fact that these commonplace authors are never more than half-conscious when they write, would be enough to account for their dullness of mind and the tedious things they produce. I say they are only half-conscious, because they really do not themselves understand the meaning of the words they use: they take words ready-made and commit them to memory. Hence when they write, it is not so much words as whole phrases that they put together—*phrases banales*. This is the explanation of that palpable lack of clearly expressed thought in what they say. The fact is that they do not possess the die to give this stamp to their writing; clear thought of their own is just what they have not got. And what do we find in its place?—a vague, enigmatical intermixture of words, current phrases, hackneyed terms, and fashionable expressions. The result is that the foggy stuff they write is like a page printed with very old type.

On the other hand, an intelligent author really speaks to us when he writes, and that is why he is able to rouse our interest and commune with us. It is the intelligent author alone who puts individual words together with a full consciousness of their meaning, and chooses them with deliberate design. Consequently his discourse stands to that of the writers just described, much as a picture that has been painted to one that has been produced by the use of a stencil. In the one case, every word, every touch of the brush, has a special purpose; in the other, all is done mechanically.

I have alluded to the tediousness which marks the works of these writers, and in this connection it is to be observed,

generally, that tediousness is of two kinds: objective and subjective. A work is objectively tedious when it contains the defect in question; that is to say, when its author has no perfectly clear thought or knowledge to communicate. For if a man has any clear thought or knowledge in him, his aim will be to communicate it, and he will direct his energies to this end; so that the ideas he furnishes are everywhere clearly expressed. The result is that he is neither diffuse, nor unmeaning, nor confused, and consequently not tedious. In such a case, even though the author is at bottom in error, the error is at any rate clearly worked out and well thought over, so that it is at least formally correct; and thus some value always attaches to the work. But for the same reason a work that is objectively tedious is at all times devoid of any value whatever.

The other kind of tediousness is only relative: a reader may find a work dull because he has no interest in the question treated of in it, and this means that his intellect is restricted. The best work may, therefore, be tedious subjectively—tedious, I mean, to this or that particular person—just as the worst work may be subjectively engrossing to this or that particular person who has an interest in the question treated of, or in the writer of the book.

It would generally serve writers in good stead if they would see that, while a man should, if possible, think like a great genius, he should talk the same language as everyone else. Authors should use common words to say uncommon things. But they do just the opposite. We find them trying to wrap up trivial ideas in grand words, and to clothe their very ordinary thoughts in the most extraordinary phrases, the most far-fetched, unnatural, and out-of-the-way expressions. Their sentences perpetually stalk about on stilts. They take so much pleasure in bombast, and write in such a high-flown, bloated, affected, hyperbolical, and acrobatic style that their prototype is Ancient Pistol, whom his friend Falstaff once impatiently told to say what he had to say *like a man of this world*.

There is no expression in any other language exactly

answering to the French *stile empesé*; but the thing itself exists all the more often. When associated with affectation, it is in literature what assumption of dignity, grand airs, and primness are in society—and is equally intolerable. Dullness of mind is fond of donning this dress; just as in ordinary life it is stupid people who like being demure and formal.

An author who writes in the prim style resembles a man who dresses himself up in order to avoid being confounded or put on the same level with the mob—a risk never run by the *gentleman*, even in his worst clothes. The plebeian may be known by a certain showiness of attire and a wish to have everything spick and span; and, in the same way, a commonplace person is betrayed by his style.

Nevertheless, an author follows a false aim if he tries to write exactly as he speaks. There is no style of writing but should have a certain trace of kinship with the *epigraphic* or *monumental* style, which is, indeed, the ancestor of all styles. For an author to write as he speaks is just as reprehensible as the opposite fault, to speak as he writes; for this gives a pedantic effect to what he says, and at the same time makes him hardly intelligible.

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Let all redundancy be avoided, all stringing together of remarks which have no meaning and are not worth perusal. A writer must make a sparing use of the reader's time, patience, and attention. . . . It is always better to omit something good than to add that which is not worth saying at all. This is the right application of Hesiod's maxim, *the half is more than the whole*. *Le secret pour être ennuyeux, c'est de tout dire*. Therefore, if possible, the quintessence only! mere leading thoughts! nothing that the reader would think for himself. To use many words to communicate few thoughts is everywhere the unmistakable sign of mediocrity. To gather much thought into few words stamps the man of genius.

Truth is most beautiful undraped; and the impression it makes is deep in proportion as its expression has been simple. This is so, partly because it then takes unob-

structed possession of the hearer's whole soul, and leaves him no by-thoughts to distract him; partly, also, because he feels that here he is not being corrupted or cheated by the arts of rhetoric, but that all the effect of what is said comes from the thing itself. For instance, what declamation on the vanity of human existence could ever be more telling than the words of Job?—*Man that is born of a woman hath but a short time to live and is full of misery. He cometh up, and is cut down, like a flower; he fleeth as it were a shadow, and never continueth in one stay.*

For the same reason Goethe's naive poetry is incomparably greater than Schiller's rhetoric. It is this, again, that makes many popular songs so affecting. As in architecture an excess of decoration is to be avoided, so in the art of literature a writer must guard against all rhetorical finery, all useless amplification, and all superfluity of expression in general; in a word, he must strive after *chastity* of style. Every word that can be spared is hurtful if it remains. The law of simplicity and naivety holds good of all fine art; for it is quite possible to be at once simple and sublime.

True brevity of expression consists in everywhere saying only what is worth saying, and in avoiding tedious detail about things which everyone can supply for himself. This involves correct discrimination between what is necessary and what superfluous. A writer should never be brief at the expense of being clear, to say nothing of being grammatical. It shows lamentable want of judgment to weaken the expression of a thought, or to stunt the meaning of a period for the sake of using a few words less. But this is the precise endeavor of that false brevity nowadays so much in vogue, which proceeds by leaving out useful words and even by sacrificing grammar and logic. It is not only that such writers spare a word by making a single verb or adjective do duty for several different periods, so that the reader, as it were, has to grope his way through them in the dark; they also practise, in many respects, an unseemly economy of speech, in the effort to effect what they foolishly take to be brevity of expression and conciseness of style. By omitting some-

thing that might have thrown a light over the whole sentence, they turn it into a conundrum, which the reader tries to solve by going over it again and again.

It is wealth and weight of thought, and nothing else, that gives brevity to style, and makes it concise and pregnant. If a writer's ideas are important, luminous, and generally worth communicating, they will necessarily furnish matter and substance enough to fill out the periods which give them expression, and make these in all their parts both grammatically and verbally complete; and so much will this be the case that no one will ever find them hollow, empty, or feeble. The diction will everywhere be brief and pregnant, and allow the thought to find intelligible and easy expression, and even unfold and move about with grace. Therefore instead of contracting his words and forms of speech, let a writer enlarge his thoughts. If a man has been thinned by illness and finds his clothes too big, it is not by cutting them down, but by recovering his usual bodily condition, that he ought to make them fit him again.

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He who writes carelessly confesses thereby at the very outset that he does not attach much importance to his own thoughts. For it is only where a man is convinced of the truth and importance of his thoughts that he feels the enthusiasm necessary for an untiring and assiduous effort to find the clearest, finest, and strongest expression for them. It was this feeling that led ancient authors, whose thoughts, expressed in their own words, have lived thousands of years, and therefore bear the honored title of *classics*, always to write with care. Plato, indeed, is said to have written the introduction to his *Republic* seven times over in different ways.

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Few write in the way in which an architect builds; who, before he sets to work, sketches out his plan, and thinks it over down to its smallest details. Nay, most people write only as though they were playing dominoes;

and as in this game the pieces are arranged half by design, half by chance, so it is with the sequence and connection of their sentences. They have merely an idea of what the general shape of their work will be, and of the aim they set before themselves. Many are ignorant even of this, and write as the coral insects build—period joins to period, and Lord knows what the writer means.

Arthur Schopenhauer: *The Art of Literature*. (Translated by T. B. Saunders.)

ON THE TRAGEDIES OF SHAKSPEARE CONSIDERED WITH REFERENCE TO THEIR FITNESS FOR STAGE REPRESENTATION

Taking a turn the other day in the Abbey, I was struck with the affected attitude of a figure, which I do not remember to have seen before, and which upon examination proved to be a whole-length of the celebrated Mr. Garrick. Though I would not go so far with some good Catholics abroad as to shut players altogether out of consecrated ground, yet I own I was not a little scandalized at the introduction of theatrical airs and gestures into a place set apart to remind us of the saddest realities. Going nearer, I found inscribed under this harlequin figure the following lines:

To paint fair Nature, by divine command,
Her magic pencil in his glowing hand,
A Shakspeare rose: then to expand his fame
Wide o'er this breathing world, a Garrick came.
Though sunk in death the forms the poet drew,
The Actor's genius bade them breathe anew;
Though, like the bard himself, in night they lay,
Immortal Garrick call'd them back to day:
And till ETERNITY with power sublime,
Shall mark the mortal hour of hoary TIME,
SHAKSPEARE and GARRICK like twin stars shall shine,
And earth irradiate with a beam divine.

It would be an insult to my readers' understandings to attempt anything like a criticism on this farrago of false thoughts and nonsense. But the reflection it led me into was a kind of wonder, how, from the days of the actor

here celebrated to our own, it should have been the fashion to compliment every performer in his turn, that has had the luck to please the town in any of the great characters of Shakspeare, with the notion of possessing a *mind congenial with the poet's*: how people should come thus unaccountably to confound the power of originating poetical images and conceptions with the faculty of being able to read or recite the same when put into words; or what connection that absolute mastery over the heart and soul of man, which a great dramatic poet possesses, has with those low tricks upon the eye and ear, which a player by observing a few general effects, which some common passion, as grief, anger, etc., usually has upon the gestures and exterior, can so easily compass. To know the internal workings and movements of a great mind, of an Othello or a Hamlet for instance, the *when* and the *why* and the *how far* they should be moved; to what pitch a passion is becoming; to give the reins and to pull in the curb exactly at the moment when the drawing in or the slackening is most graceful; seems to demand a reach of intellect of a vastly different extent from that which is employed upon the bare imitation of the signs of these passions in the countenance or gesture, which signs are usually observed to be most lively and emphatic in the weaker sort of minds, and which signs can after all but indicate some passion, as I said before, anger, or grief, generally; but of the motives and grounds of the passion, wherein it differs from the same passion in low and vulgar natures, of these the actor can give no more idea by his face or gesture than the eye (without a metaphor) can speak, or the muscles utter intelligible sounds. But such is the instantaneous nature of the impressions which we take in at the eye and ear at a playhouse, compared with the slow apprehension oftentimes of the understanding in reading, that we are apt not only to sink the play writer in the consideration which we pay to the actor, but even to identify in our minds in a perverse manner, the actor with the character which he represents. It is difficult for a frequent playgoer to disembarass the idea of Hamlet from the person and voice of Mr. K. We speak of Lady Macbeth, while we

are in reality thinking of Mrs. S. Nor is this confusion incidental alone to unlettered persons, who, not possessing the advantage of reading, are necessarily dependent upon the stage-player for all the pleasure which they can receive from the drama, and to whom the very idea of *what an author is* cannot be made comprehensible without some pain and perplexity of mind; the error is one from which persons otherwise not meanly lettered, find it almost impossible to extricate themselves.

Never let me be so ungrateful as to forget the very high degree of satisfaction which I received some years back, from seeing for the first time a tragedy of Shakspeare performed, in which these two great performers sustained the principal parts. It seemed to embody and realize conceptions which had hitherto assumed no distinct shape. But dearly do we pay all our life after for this juvenile pleasure, this sense of distinctness. When the novelty is past, we find to our cost that instead of realizing an idea, we have only materialized and brought down a fine vision to the standard of flesh and blood. We have let go a dream, in quest of an unattainable substance.

How cruelly this operates upon the mind, to have its free conceptions thus cramped and pressed down to the measure of a strait-lacing actuality, may be judged from that delightful sensation of freshness, with which we turn to those plays of Shakspeare which have escaped being performed, and to those passages in the acting plays of the same writer which have been happily left out in performance. How far the very custom of hearing anything *spouted*, withers and blows upon a fine passage, may be seen in those speeches from Henry the Fifth, etc., which are current in the mouths of school-boys from their being to be found in *Enfield Speakers*, and such kind of books. I confess myself utterly unable to appreciate that celebrated soliloquy in *Hamlet*, beginning "To be or not to be," or to tell whether it be good, bad, or indifferent, it has been so handled and pawed about by declamatory boys and men, and torn so inhumanly from its living place and principle of continuity in the play, till it is become to me a perfect dead member.

It may seem a paradox, but I cannot help being of opinion that the plays of Shakspeare are less calculated for performance on a stage, than those of almost any other dramatist whatever. Their distinguished excellence is a reason that they should be so. There is so much in them, which comes not under the province of acting, with which eye, and tone, and gesture, have nothing to do.

The glory of the scenic art is to personate passion, and the turn of passion; and the more coarse and palpable the passion is, the more hold upon the eyes and ears of the spectators the performer obviously possesses. For this reason, scolding scenes, scenes where two persons talk themselves into a fit of fury, and then in a surprising manner talk themselves out of it again, have always been the most popular upon our stage. And the reason is plain, because the spectators are here most palpably appealed to, they are the proper judges in this war of words, they are the legitimate ring that should be formed round such "intellectual prize-fighters." Talking is the direct object of the imitation here. But in all the best dramas, and in Shakspeare above all, how obvious it is, that the form of *speaking*, whether it be in soliloquy or dialogue, is only a medium, and often a highly artificial one, for putting the reader or spectator into possession of that knowledge of the inner structure and workings of mind in a character, which he could otherwise never have arrived at *in that form of composition* by any gift short of intuition. We do here as we do with novels written in the *epistolary form*. How many improprieties, perfect solecisms in letter-writing, do we put up with in *Clarissa* and other books, for the sake of the delight which that form upon the whole gives us.

But the practice of stage representation reduces every thing to a controversy of elocution. Every character, from the boisterous blasphemings of Bajazet to the shrinking timidity of womanhood, must play the orator. The love-dialogues of Romeo and Juliet, those silver-sweet sounds of lovers' tongues by night; the more intimate and sacred sweetness of nuptial colloquy between an Othello or a

Posthumus with their married wives, all those delicacies which are so delightful in the reading, as when we read of those youthful dalliances in Paradise—

as beseeem'd
Fair couple link'd in happy nuptial league,
Alone:

by the inherent fault of stage representation, how are these things sullied and turned from their very nature by being exposed to a large assembly; when such speeches as Imogen addresses to her lord, come drawling out of the mouth of a hired actress, whose courtship, though nominally addressed to the personated Posthumus, is manifestly aimed at the spectators, who are to judge of her endearments and her returns of love.

The character of Hamlet is perhaps that by which, since the days of Betterton, a succession of popular performers have had the greatest ambition to distinguish themselves. The length of the part may be one of their reasons. But for the character itself, we find it in a play, and therefore we judge it a fit subject for dramatic representation. The play itself abounds in maxims and reflections beyond any other, and therefore we consider it as a proper vehicle for conveying moral instruction. But Hamlet himself—what does he suffer meanwhile by being dragged forth as a public schoolmaster, to give lectures to the crowd! Why, nine parts in ten of what Hamlet does, are transactions between himself and his moral sense, they are the effusions of his solitary musings, which he retires to holes and corners and the most sequestered parts of the palace to pour forth; or rather, they are the silent meditations with which his bosom is bursting, reduced to *words* for the sake of the reader, who must else remain ignorant of what is passing there. These profound sorrows, these light-and-noise-abhorring ruminations, which the tongue scarce dares utter to deaf walls and chambers, how can they be represented by a gesticulating actor, who comes and mouths them out before an audience, making four hundred people his confidants at once? I say not that it is the fault of the actor so to do; he must pronounce them *ore rotundo*, he must accompany them with his eye, tone, or gesture, or he

fails. *He must be thinking all the while of his appearance, because he knows that all the while the spectators are judging of it.* And this is the way to represent the shy, negligent, retiring Hamlet!

It is true that there is no other mode of conveying a vast quantity of thought and feeling to a great portion of the audience, who otherwise would never earn it for themselves by reading, and the intellectual acquisition gained this way may, for aught I know, be inestimable: but I am not arguing that Hamlet should not be acted, but how much Hamlet is made another thing by being acted. I have heard much of the wonder which Garrick performed in this part; but as I never saw him, I must have leave to doubt whether the representation of such a character came within the province of his art. Those who tell me of him, speak of his eye, of the magic of his eye, and of his commanding voice: physical properties, vastly desirable in an actor, and without which he can never insinuate meaning into an auditory—but what have they to do with Hamlet? what have they to do with intellect? In fact, the things aimed at in theatrical representation, are to arrest the spectator's eye upon the form and the gesture, and so to gain a more favorable hearing to what is spoken: it is not what the character is, but how he looks; not what he says, but how he speaks it. I see no reason to think that if the play of *Hamlet* were written over again by some such writer as Banks or Lillo, retaining the process of the story, but totally omitting all the poetry of it, all the divine features of Shakspeare, his stupendous intellect; and only taking care to give us enough of passionate dialogue, which Banks or Lillo were never at a loss to furnish; I see not how the effect could be much different upon an audience, nor how the actor has it in his power to represent Shakspeare to us differently from his representation of Banks or Lillo. Hamlet would still be a youthful accomplished prince, and must be gracefully personated; he might be puzzled in his mind, wavering in his conduct, seemingly cruel to Ophelia, he might see a ghost, and start at it, and address it kindly when he found it to be his father; all this in the poorest and most homely language

of the servilest creeper after nature that ever consulted the palate of an audience; without troubling Shakspeare for the matter: and I see not but there would be room for all the power which an actor has, to display itself. All the passions and changes of passion might remain: for those are much less difficult to write or act than is thought, it is a trick easy to be attained, it is but rising or falling a note or two in the voice, a whisper with a significant foreboding look to announce its approach, and so contagious the counterfeit appearance of any emotion is, that let the words be what they will, the look and tone shall carry it off and make it pass for deep skill in the passions.

It is common for people to talk of Shakspeare's plays being *so natural*; that everybody can understand him. They are natural indeed, they are grounded deep in nature, so deep that the depth of them lies out of the reach of most of us. You shall hear the same persons say that *George Barnwell* is very natural, and *Othello* is very natural, that they are both very deep; and to them they are the same kind of thing. At the one they sit and shed tears, because a good sort of young man is tempted by a naughty woman to commit *a trifling peccadillo*, the murder of an uncle or so, that is all, and so comes to an untimely end, which is *so moving*; and at the other, because a blackamoor in a fit of jealousy kills his innocent white wife: and the odds are that ninety-nine out of a hundred would willingly behold the same catastrophe happen to both the heroes, and have thought the rope more due to *Othello* than to *Barnwell*. For of the texture of *Othello's* mind, the inward construction marvellously laid open with all its strengths and weaknesses, its heroic confidences and its human misgivings, its agonies of hate springing from the depths of love, they see no more than the spectators at a cheaper rate, who pay their pennies apiece to look through the man's telescope in Leicester Fields, see into the inward plot and topography of the moon. Some dim thing or other they see, they see an actor personating a passion of grief, or anger, for instance, and they recognize it as a copy of the usual external effects of such passions; or at least as being true to *that symbol of the emotion which*

passes current at the theatre for it, for it is often no more than that: but of the grounds of the passion, its correspondence to a great or heroic nature, which is the only worthy object of tragedy—that common auditors know any thing of this, or can have any such notions dinned into them by the mere strength of an actor's lungs—that apprehensions foreign to them should be thus infused into them by storm, I can neither believe, nor understand how it can be possible.

We talk of Shakspeare's admirable observation of life, when we should feel, that not from a petty inquisition into those cheap and every-day characters which surrounded him, as they surround us, but from his own mind, which was, to borrow a phrase of Ben Jonson's, the very "sphere of humanity" fetched those images of virtue and of knowledge, of which every one of us recognizing a part, think we comprehend in our natures the whole; and oftentimes mistake the powers which he positively creates in us, for nothing more than indigenous faculties of our own minds, which only waited the application of corresponding virtues in him to return a full and clear echo of the same.

To return to Hamlet.—Among the distinguishing features of that wonderful character, one of the most interesting (yet painful) is that soreness of mind which makes him treat the intrusions of Polonius with harshness, and that asperity which he puts on in his interviews with Ophelia. These tokens of an unhinged mind (if they be not mixed in the latter case with a profound artifice of love, to alienate Ophelia by affected discourtesies, so to prepare her mind for the breaking off of that loving intercourse, which can no longer find a place amidst business so serious as that which he has to do) are parts of his character, which to reconcile with our admiration of Hamlet, the most patient consideration of his situation is no more than necessary; they are what we *forgive afterwards*, and explain by the whole of his character, but *at the time* they are harsh and unpleasant. Yet such is the actor's necessity of giving strong blows to the audience, that I have never seen a player in this character, who did not exaggerate and strain to the utmost these ambiguous features—

these temporary deformities in the character. They make him express a vulgar scorn at Polonius which utterly degrades his gentility, and which no explanation can render palatable; they make him show contempt and curl up the nose at Ophelia's father—contempt in its very grossest and most hateful form; but they get applause by it: it is natural, people say; that is, the words are scornful, and the actor expresses scorn, and that they can judge of: but why so much scorn, and of that sort, they never think of asking.

So to Ophelia.—All the Hamlets that I have ever seen, rant and rave at her as if she had committed some great crime, and the audience are highly pleased, because the words of the part are satirical, and they are enforced by the strongest expression of satirical indignation of which the face and voice are capable. But then, whether Hamlet is likely to have put on such brutal appearances to a lady whom he loved so dearly, is never thought on. The truth is, that in all such deep affections as had subsisted between Hamlet and Ophelia, there is a stock of *superogatory love*, (if I may venture to use the expression) which in any great grief of heart, especially where that which preys upon the mind cannot be communicated, confers a kind of indulgence upon the grieved party to express itself, even to its heart's dearest object, in the language of a temporary alienation; but it is not alienation, it is a distraction purely, and so it always makes itself to be felt by that object: it is not anger, but grief assuming the appearance of anger—love awkwardly counterfeiting hate, as sweet countenances when they try to frown: but such sternness and fierce disgust as Hamlet is made to show, is no counterfeit, but the real face of absolute aversion—of irreconcilable alienation. It may be said he puts on the madman; but then he should only so far put on this counterfeit lunacy as his own real distraction will give him leave; that is, incompletely, imperfectly; not in that confirmed, practiced way, like a master of his art, or, as Dame Quickly would say, “like one of those harlotry players.”

I mean no disrespect to any actor, but the sort of

pleasure which Shakspeare's plays give in the acting seems to me not at all to differ from that which the audience receives from those of other writers; and, *they being in themselves essentially so different from all others*, I must conclude that there is something in the nature of acting which levels all distinctions. And in fact, who does not speak indifferently of the Gamester and of Macbeth as fine stage performances, and praise the Mrs. Beverley in the same way as the Lady Macbeth of Mrs. S.? Belvidera, and Calista, and Isabella, and Euphrasia, are they less liked than Imogen, or than Juliet, or than Desdemona? Are they not spoken of and remembered in the same way? Is not the female performer as great (as they call it) in one as in the other? Did not Garrick shine, and was he not ambitious of shining in every drawling tragedy that his wretched day produced—the productions of the Hills and the Murphys and the Browns—and shall he have that honor to dwell in our minds for ever as an inseparable concomitant with Shakspeare? A kindred mind! O who can read that affecting sonnet of Shakspeare which alludes to his profession as a player:

Oh for my sake do you with Fortune chide,
The guilty goddess of my harmful deeds,
That did not better for my life provide
Than public means which public custom breeds—
Thence comes it that my name receives a brand;
And almost thence my nature is subdued
To what it works in, like the dyer's hand—

Or that other confession—

Alas! 'tis true, I have gone here and there,
And made myself a motley to thy view,
Gor'd mine own thoughts, sold cheap what is most dear—

Who can read these instances of jealous self-watchfulness in our sweet Shakspeare, and dream of any congeniality between him and one that, by every tradition of him, appears to have been as mere a player as ever existed; to have had his mind tainted with the lowest player's vices—envy and jealousy, and miserable cravings after applause; one who in the exercise of his profession

was jealous even of the women performers that stood in his way; a manager full of managerial tricks and stratagems and finesse: that any resemblance should be dreamed of between him and Shakspeare—Shakspeare who, in the plenitude and consciousness of his own powers, could with that noble modesty, which we can neither imitate nor appreciate, express himself thus of his own sense of his own defects:

Wishing me like to one more rich in hope,
Featured like him, like him with friends possess;
Desiring this man's art, and that man's scope.

I am almost disposed to deny to Garrick the merit of being an admirer of Shakspeare. A true lover of his excellencies he certainly was not; for would any true lover of them have admitted into his matchless scenes such ribald trash as Tate and Cibber, and the rest of them, that "With their darkness durst affront his light," have foisted into the acting plays of Shakspeare? I believe it impossible that he could have had a proper reverence for Shakspeare, and have condescended to go through that interpolated scene in *Richard the Third*, in which Richard tries to break his wife's heart by telling her he loves another woman, and says, "If she survives this she is immortal." Yet I doubt not he delivered this vulgar stuff with as much anxiety of emphasis as any of the genuine parts; and for acting, it is as well calculated as any. But we have seen the part of Richard lately produce great fame to an actor by his manner of playing it, and it lets us into the secret of acting, and of popular judgments of Shakspeare derived from acting. Not one of the spectators who have witnessed Mr. C.'s exertions in that part, but has come away with a proper conviction that Richard is a very wicked man and kills little children in their beds, with something like the pleasure which the giants and ogres in children's books are represented to have taken in that practice; moreover, that he is very close and shrewd and devilish cunning, for you could see that by his eye.

But is in fact this the impression we have in reading the *Richard* of Shakspeare? Do we feel anything like disgust,

as we do at that butcher-like representation of him that passes for him on the stage? A horror at his crimes blends with the effect which we feel, but how is it qualified, how is it carried off, by the rich intellect which he displays, his resources, his wit, his buoyant spirits, his vast knowledge and insight into characters, the poetry of his part—not an atom of all which is made perceivable in Mr. C.'s way of acting it. Nothing but his crimes, his actions, is visible; they are prominent and staring; the murderer stands out, but where is the lofty genius, the man of vast capacity—the profound, the witty, accomplished Richard?

The truth is, the characters of Shakspeare are so much the object of meditation rather than of interest or curiosity as to their actions, that while we are reading any of his great criminal characters—Macbeth, Richard, even Iago—we think not so much of the crimes which they commit, as of the ambition, the aspiring spirit, the intellectual activity, which prompts them to overleap those moral fences. Barnwell is a wretched murderer; there is a certain fitness between his neck and the rope; he is the legitimate heir to the gallows; nobody who thinks at all can think of any alleviating circumstances in his case to make him a fit object of mercy. Or to take an instance from the higher tragedy, what else but a mere assassin is Glengalvon! Do we think of anything but of the crime which he commits, and the rack which he deserves? That is all which we really think about him. Whereas in corresponding characters in Shakspeare so little do the actions comparatively affect us, that while the impulses, the inner mind in all its perverted greatness, solely seems real and is exclusively attended to, the crime is comparatively nothing. But when we see these things represented, the acts which they do are comparatively everything, their impulses nothing. The state of sublime emotion into which we are elevated by those images of night and horror which Macbeth is made to utter, that solemn prelude with which he entertains the time till the bell shall strike which is to call him to murder Duncan—when we no longer read it in a book, when we have given up that vantage-ground of abstraction which reading possesses over seeing, and come

to see a man in his bodily shape before our eyes actually preparing to commit a murder, if the acting be true and impressive, as I have witnessed it in Mr. K.'s performance of that part, the painful anxiety about the act, the natural longing to prevent it while it yet seems unperpetrated, the too close pressing semblance of reality, give a pain and an uneasiness which totally destroy all the delight which the words in the book convey, where the deed doing never presses upon us with the painful sense of presence: it rather seems to belong to history—to something past and inevitable, if it has any thing to do with time at all. The sublime images, the poetry alone, is that which is present to our minds in the reading.

So to see Lear acted—to see an old man tottering about the stage with a walking stick, turned out of doors by his daughters in a rainy night, has nothing in it but what is painful and disgusting. We want to take him into shelter and relieve him. That is all the feeling which the acting of Lear ever produced in me. But the Lear of Shakspeare cannot be acted. The contemptible machinery by which they mimic the storm which he goes out in, is not more inadequate to represent the horrors of the real elements, than any actor can be to represent Lear: they might more easily propose to personate the Satan of Milton upon a stage, or one of Michael Angelo's terrible figures. The greatness of Lear is not in corporal dimension, but in intellectual: the explosions of his passion are terrible as a volcano; they are storms turning up and disclosing to the bottom that sea, his mind, with all its vast riches. It is his mind which is laid bare. This case of flesh and blood seems too insignificant to be thought on; even as he himself neglects it. On the stage we see nothing but corporal infirmities and weakness, the impotence of rage; while we read it, we see not Lear, but we are Lear—we are in his mind, we are sustained by a grandeur which baffles the malice of daughters and storms; in the aberrations of his reason, we discover a mighty irregular power of reasoning, immethodized from the ordinary purposes of life, but exerting its power, as the wind blows where it listeth, at will upon the corruptions and abuses of mankind. What

have looks, or tones, to do with that sublime identification of his age with that of the *heavens themselves*, when in his reproaches to them for conniving at the injustice of his children, he reminds them that "they themselves are old." What gesture shall we appropriate to this? What has the voice or the eye to do with such things? But the play is beyond all art, as the tamperings with it show: it is too hard and stony; it must have love-scenes, and a happy ending. It is not enough that Cordelia is a daughter, she must shine as a lover too. Tate has put his hook in the nostrils of this Leviathan, for Garrick and his followers, the showmen of the scene, to draw the mighty beast about more easily. A happy ending!—as if the living martyrdom that Lear had gone through—the flaying of his feelings alive, did not make a fair dismissal from the stage of life the only decorous thing for him. If he is to live and be happy after, if he could sustain this world's burden after, why all this pudger and preparation—why torment us with all this unnecessary sympathy? As if the childish pleasure of getting his gilt robes and sceptre again could tempt him to act over again his misused station—as if at his years, and with his experience, anything was left but to die.

Lear is essentially impossible to be represented on a stage. But how many dramatic personages are there in Shakspeare, which though more tractable and feasible (if I may so speak) than Lear, yet from some circumstance, some adjunct to their character, are improper to be shown to our bodily eye. Othello for instance. Nothing can be more soothing, more flattering to the nobler parts of our natures, than to read of a young Venetian lady of highest extraction, through the force of love and from a sense of merit in him whom she loved, laying aside every consideration of kindred and country, and color, and wedding with a *coal-black Moor*—(for such he is represented, in the imperfect state of knowledge respecting foreign countries in those days, compared with our own, or in compliance with popular notions . . .)—it is the perfect triumph of virtue over accidents, of the imagination over the senses. She sees Othello's color in his mind. But

upon the stage, when the imagination is no longer the ruling faculty, but we are left to our poor unassisted senses, I appeal to every one that has seen Othello played, whether he did not, on the contrary, sink Othello's mind in his color; whether he did not find something extremely revolting in the courtship and wedded caresses of Othello and Desdemona; and whether the actual sight of the thing did not overweigh all that beautiful compromise which we make in reading—and the reason it should do so is obvious, because there is just so much reality presented to our senses as to give a perception of disagreement, with not enough of belief in the internal motives—all that which is unseen—to overpower and reconcile the first and obvious prejudices. What we see upon a stage is body and bodily action; what we are conscious of in reading is almost exclusively the mind, and its movements: and this I think may sufficiently account for the very different sort of delight with which the same play so often affects us in the reading and the seeing.

It requires little reflection to perceive, that if those characters in Shakspeare which are within the precincts of nature, have yet something in them which appeals too exclusively to the imagination, to admit of their being made objects to the senses without suffering a change and a diminution—that still stronger the objection must lie against representing another line of characters, which Shakspeare has introduced to give a wildness and a supernatural elevation to his scenes, as if to remove them still farther from that assimilation to common life in which their excellence is vulgarly supposed to consist. When we read the incantations of those terrible beings the Witches in *Macbeth*, though some of the ingredients of their hellish composition savor of the grotesque, yet is the effect upon us other than the most serious and appalling that can be imagined? Do we not feel spellbound as Macbeth was? Can any mirth accompany a sense of their presence? We might as well laugh under a consciousness of the Principle of Evil himself being truly and really present with us. But attempt to bring these beings on to a stage, and you turn them instantly into so many old women, that men

and children are to laugh at. Contrary to the old saying, that "seeing is believing," the sight actually destroys the faith; and the mirth in which we indulge at their expense, when we see these creatures upon a stage, seems to be a sort of indemnification which we make to ourselves for the terror which they put us in when reading made them an object of belief—when we surrendered up our reason to the poet, as children to their nurses and their elders; and we laugh at our fears, as children who thought they saw something in the dark, triumph when the bringing in of a candle discovers the vanity of their fears. For this exposure of supernatural agents upon a stage is truly bringing in a candle to expose their own delusiveness. It is a solitary taper and the book that generates a faith in these terrors: a ghost by chandelier light, and in good company, deceives no spectators—a ghost that can be measured by the eye, and his human dimensions made out at leisure. The sight of a well-lighted house, and a well-dressed audience, shall arm the most nervous child against any apprehensions: as Tom Brown says of the impenetrable skin of Achilles with his impenetrable armor over it, "Bully Dawson would have fought the devil with such advantages."

Much has been said, and deservedly, in reprobation of the vile mixture which Dryden has thrown into *The Tempest*: doubtless without some such vicious alloy, the impure ears of that age would never have sat out to hear so much innocence of love as is contained in the sweet courtship of Ferdinand and Miranda. But is *The Tempest* of Shakspeare at all a subject for stage representation? It is one thing to read of an enchanter, and to believe the wondrous tale while we are reading it; but to have a conjuror brought before us in his conjuring gown, with his spirits about him, which none but himself and some hundred of favored spectators before the curtain are supposed to see, involves such a quantity of the *hateful incredible*, that all our reverence for the author cannot hinder us from perceiving such gross attempts upon the senses to be in the highest degree childish and inefficient. Spirits and fairies cannot be represented, they cannot even be

painted—they can only be believed. But the elaborate and anxious provision of scenery, which the luxury of the age demands, in these cases works a quite contrary effect to what is intended. That which in comedy, or plays of familiar life, adds so much to the life of the imitation, in plays which appeal to the higher faculties, positively destroys the illusion which it is introduced to aid. A parlor or a drawing room—a library opening into a garden—a garden with an alcove in it—a street, or the piazza of Covent Garden, does well enough in a scene; we are content to give as much credit to it as it demands; or rather, we think little about it—it is little more than reading at the top of a page, “Scene, a Garden;” we do not imagine ourselves there, but we readily admit the imitation of familiar objects. But to think by the help of painted trees and caverns, which we know to be painted, to transport our minds to Prospero, and his island and his lonely cell; or by the aid of a fiddle dexterously thrown in, in an interval of speaking, to make us believe that we hear those supernatural noises of which the isle was full—the Orrery Lecturer at the Haymarket might as well hope, by his musical glasses cleverly stationed out of sight behind his apparatus, to make us believe that we do indeed hear the crystal spheres ring out that chime, which if it were to inwrap our fancy long, Milton thinks,

Time would run back and fetch the age of gold,
And speckled vanity
Would sicken soon and die,
And leprous Sin would melt from earthly mould;
Yea Hell itself would pass away,
And leave its dolorous mansions to the peering day.

The Garden of Eden, with our first parents in it, is not more impossible to be shown on a stage, than the Enchanted Isle, with its no less interesting and innocent first settlers.

The subject of scenery is closely connected with that of the dresses, which are so anxiously attended to on our stage. I remember the last time I saw *Macbeth* played, the dis-

crepancy I felt at the changes of garment which he varied—the shiftings and re-shiftings, like a Romish priest at mass. The luxury of stage improvements, and the importunity of the public eye, require this. The coronation robe of the Scottish monarch was fairly a counterpart to that which our King wears when he goes to the Parliament House—just so full and cumbersome, and set out with ermine and pearls. And if things must be represented, I see not what to find fault with in this. But in reading, what robe are we conscious of? Some dim images of royalty—a crown and sceptre, may float before our eyes, but who shall describe the fashion of it? Do we see in our mind's eye what Webb or any other robe maker could pattern? This is the inevitable consequence of imitating every thing, to make all things natural. Whereas the reading of a tragedy is a fine abstraction. It presents to the fancy just so much of external appearances as to make us feel that we are among flesh and blood, while by far the greater and better part of our imagination is employed upon the thoughts and internal machinery of the character. But in acting, scenery, dress, the most contemptible things, call upon us to judge of their naturalness.

Perhaps it would be no bad similitude, to liken the pleasure which we take in seeing one of these fine plays acted, compared with that quiet delight which we find in the reading of it, to the different feelings with which a reviewer, and a man that is not a reviewer, reads a fine poem. The accursed critical habit—the being called upon to judge and pronounce, must make it quite a different thing to the former. In seeing these plays acted, we are affected just as judges. When Hamlet compares the two pictures of Gertrude's first and second husband, who wants to see the pictures? But in the acting, a miniature must be lugged out; which we know not to be the picture, but only to show how finely a miniature may be represented. This showing of everything levels all things: it makes tricks, bows, and courtesies, of importance. Mrs. S. never got more fame by any thing than by the manner in which she dismisses the guests in the banquet scene in *Macbeth*: it is as much remembered as any of her thrilling

tones or impressive looks. But does such a trifle as this enter into the imaginations of the readers of that wild and wonderful scene? Does not the mind dismiss the feasters as rapidly as it can? Does it care about the gracefulness of the doing it? But by acting, and judging of acting, all these non-essentials are raised into an importance, injurious to the main interest of the play.

I have confined my observations to the tragic parts of Shakspeare. It would be no very difficult task to extend the enquiry to his comedies; and to show why Falstaff, Shallow, Sir Hugh Evans, and the rest, are equally incompatible with stage representation. The length to which this essay has run, will make it, I am afraid, sufficiently distasteful to the amateurs of the theatre, without going any deeper into the subject at present.

Charles Lamb: *Miscellaneous Papers*.

LOAFING

When the golden summer has rounded languidly to his close, when autumn has been carried forth in russet winding sheet, then all good fellows who look upon holidays as a chief end of life return from moor and stream and begin to take stock of gains and losses. And the wisest, realizing that the time of action is over while that of reminiscence has begun, realize too that the one is pregnant with greater pleasures than the other—that action, indeed, is only the means to an end of reflection and appreciation. Wisest of all, the Loafer stands apart supreme. For he, of one mind with the philosopher as to the end, goes straight to it at once; and his happy summer has accordingly been spent in those subjective pleasures of the mind whereof the others, the men of muscle and peeled faces, are only just beginning to taste.

And yet though he may a little despise (or rather pity) them, the Loafer does not dislike nor altogether shun them. Far from it: they are very necessary to him. For "*Suave mari magno*" is the motto of your true Loafer; and it is chiefly by keeping ever in view the struggles and the clamorous jostlings of the unenlightened making holiday

that he is able to realize the bliss of his own condition and maintain his self-satisfaction at boiling point. And so is he never very far away from the track beaten by the hurrying Philistine hoof, but hovers more or less on the edge of it, where, the sole fixed star amidst whirling constellations, he may watch the mad world "glance, and nod, and hurry by."

There are many such centres of contemplation along the west coast of Scotland. Few places are better loafing ground than a pier, with its tranquil "lucid interval" between steamers, the ever recurrent throb of paddle-wheel, the rush and foam of beaten water among the piles, splash of ropes and rumble of gangways, and all the attendant hurry and scurry of the human morrice. Here *tanquam in speculo*, the Loafer, as he lounges may, by attorney as it were, touch gently every stop in the great organ of the emotions of mortality. Rapture of meeting, departing woe, love at first sight, disdain, laughter, indifference—he may experience them all, but attenuated and as if he saw them in a dream; as if, indeed, he were Heine's god in dream on a mountain-side. Let the drowsy deity awake, and all these puppets, emanations of his dream, will vanish into the nothing whence they came. And these emotions may be renewed each morning; if a fair one sail today, be sure that one as fair will land tomorrow. The supply is inexhaustible.

But in the south perhaps the happiest loafing ground is the gift of Father Thames; for there again the contrast of violent action, with its blisters, perspiration, and the like, throws into fine relief the bliss of "quietism." I know one little village in the upper reaches where loafing may be pushed to high perfection. Here the early hours of the morning are vexed by the voices of boaters making their way down the little street to the river. The most of them go staggering under hampers, bundles of waterproofs, and so forth. Their voices are clamant of feats to be accomplished; they will row, they will punt, they will paddle, till they weary out the sun. All this the Loafer hears through the open door of his cottage, where in his shirt-sleeves he is dallying with his bacon, as a gentleman

should. He is the only one who has had a comfortable breakfast—and he knows it. Later he will issue forth and stroll down in their track to the bridge. The last of these Argonauts is pulling lustily forth; the river is dotted with evanishing blazers. Upon all these lunatics a pitiless Phoebus shines triumphant. The Loafer sees the last of them off the stage, turns his back on it, and seeks the shady side of the street.

A holy calm possesses the village now; the foreign element has passed away with shouting and waving of banners, and its natural life of somnolency is in evidence at last. And first, as a true Loafer should, let him respectfully greet each several village dog. *Arcades ambo*—loafers likewise—they lie there in the warm dust, each outside his own door, ready to return the smallest courtesy. Their own lords and masters are not given to the exchange of compliments nor to greetings in the market place. The dog is generally the better gentleman, and he is aware of it; and he duly appreciates the Loafer, who is not too proud to pause a moment, change the news, and pass the time of day. He will mark his sense of this attention by rising from his dust divan and accompanying his caller some steps on his way. But he will stop short of his neighbor's dust patch; for the morning is really too hot for a shindy. So, by easy stages (the street is not a long one: six dogs will see it out), the Loafer quits the village; and now the world is before him. Shall he sit on a gate and smoke? or lie on the grass and smoke? or smoke aimlessly and at large along the road? Such a choice of happiness is distracting; but perhaps the last course is best—as needing the least mental effort of selection. Hardly, however, has he fairly started his first day-dream when the snappish “ting” of a bellkin recalls him to realities. By comes the bicyclist: dusty, sweating, a piteous thing to look upon. But the irritation of the strepitant metal has jarred the Loafer's always exquisite nerves: he is fain to climb a gate and make his way towards solitude and the breezy downs.

Up here all vestiges of a sordid humanity disappear. The Loafer is alone with the southwest wind and the blue

sky. Only a carolling of larks and a tinkling from distant flocks break the brooding noonday stillness; above, the wind-hover hangs motionless, a black dot on the blue. Prone on his back on the springy turf, gazing up into the sky, his fleshy integument seems to drop away, and the spirit ranges at will among the tranquil clouds. This way Nirvana nearest lies. Earth no longer obtrudes herself; possibly somewhere a thousand miles or so below him the thing still "spins like a fretful midge." The Loafer knows not nor cares. His is now an astral body, and through golden spaces of imagination his soul is winging her untrammelled flight. And there he really might remain for ever, but that his vagrom spirit is called back to earth by a gentle but resistless, very human summons—a gradual, consuming, Pantagrueian, god-like thirst: a thirst to thank Heaven on. So, with a sigh half of regret, half of anticipation, he bends his solitary steps towards the nearest inn. Tobacco for one is good; to commune with oneself and be still is truest wisdom; but beer is a thing of deity—beer is divine.

Later the Loafer may decently make some concession to popular taste by strolling down to the river and getting out his boat. With one paddle out he will drift down the stream: just brushing the flowering rush and the meadow-sweet and taking in as peculiar gifts the varied sweets of even. The loosestrife is his, and the arrowhead: his the distant moan of the weir; his are the glories, amber and scarlet and silver, of the sunset-haunted surface. By-and-by the boaters will pass him homeward bound. All are blistered and sore: his withers are unwrung. Most are too tired and hungry to see the sunset glories; no corporeal pangs clog his *aesthesis*—his perceptive faculty. Some have quarrelled in the day and are no longer on speaking terms; he is at peace with himself and with the whole world. Of all that lay them down in the little village that night, his sleep will be the surest and the sweetest. For not even the blacksmith himself will have better claim to have earned a night's repose.

I.

HOW A GAS ENGINE WORKS

The purr of automobiles and the chug of motor boats have long since ceased to be unusual sounds, yet it is probable that most people are ignorant of the principles underlying the operation of the gas engine—or at best, have but a vague idea how such an engine works. They know that gasoline (because gasoline is the fuel most commonly employed) is used, and have a notion, perhaps, if they know anything of steam engines, that some sort of an explosion takes the place of steam under pressure; but further than this they know very little. In view of this general ignorance, I shall endeavor to explain as briefly as possible and without going into minute technical details, how a gas engine works.

At the present time there are two forms of gas engine in general use: the four-cycle type, in which four strokes of the piston are required to complete one cycle, or operation; and the two-cycle, in which only two strokes are required. The essential parts of the engine are the same in both types, the difference between them being due to a varied arrangement of the parts. Every gas engine must have a cylinder, closed at the top by a stationary cylinder head and at the bottom by a movable piston head which is fitted snugly to the walls of the cylinder. To this piston head is attached a piston rod which operates upon a crank shaft and thus delivers the power of the engine in usable form. In the cylinder there must be two openings, known as "ports," through one of which the explosive mixture is drawn and through the other of which the exploded gases are expelled. The inlet port is connected by a pipe to the carburetor, a device for making an explosive mixture of air and gasoline, or other vapor. The outlet port is connected to the exhaust pipe, which may be attached to a "muffler" to deaden the sound of the explosion. Finally, there must be an apparatus for exploding the gas in the

cylinder at the proper time. There are various ways of accomplishing this, but at the present time electrical sparking systems are most in use. It is impossible, in so brief a paper, to give an adequate idea of these complex systems: it will be enough for our purposes to know that when the piston head is near the top of the cylinder an electric spark, or series of sparks, is made to pass between two insulated points within the cylinder and thus cause an explosion.

In the four-cycle type of engine the inlet and exhaust ports are near the top of the cylinder. On the first downward stroke of the piston a partial vacuum is created, and this serves to draw into the cylinder, through the carburetor and an inlet port, a portion of the explosive mixture. The inlet port is fitted with a valve, operated automatically by the partial vacuum or mechanically by means of a cam attached to the crank shaft. When the piston reaches the lower end of this first stroke the inlet valve is closed, and the piston then starts upward on its second or compression, stroke, compressing the gas that has been admitted into the cylinder. Just before it reaches the top of this stroke an electrical contact is made, which causes a spark to pass between the two insulated points inside the cylinder and ignite the charge of compressed gas. By the time the gas is thoroughly ignited the piston, which has started downward on its third stroke, is ready to be driven ahead by the rapidly expanding gases. As the piston reaches the bottom of its third stroke the valve on the outlet port is opened by a cam, and the burned gases begin to rush out. The piston then starts upward on the fourth, and last, stroke of the cycle, driving the exhaust gases before it. When the piston reaches the top of this stroke the exhaust valve is closed, and the cycle is complete.

Thus it may be seen that one cycle requires four strokes of the piston, or two revolutions of the crank shaft, for its completion. And it follows from this that all of the cams operating the inlet and exhaust valves and the "spark timer," or "commutator" (which regulates the number of sparks in a given length of time), have to be revolved at

just half the speed of the crank shaft in order that they may act only once in every two revolutions of the shaft. The speed of the engine is regulated by means of the amount of gas which is allowed to enter the cylinder, and by the rapidity with which one ignition spark succeeds another.

The two-cycle engine is a much simpler piece of machinery than the four-cycle engine; for the cams, shafts, gears, etc., necessary to operate the valves on the latter make it somewhat complicated. No valves are used on the two-cycle engine, their duty being performed by the piston as it covers or uncovers the ports—which are placed near the bottom of the cylinder. The speed of this engine is regulated by the same means as those employed in the four-cycle type.

Again let us start with the piston at the top, or closed end, of the cylinder, but this time just as the explosion occurs. The piston is driven downward by the expanding gases until, when nearly at the bottom of its stroke, it uncovers the exhaust port, through which the gases immediately seek an outlet. As the piston goes on to finish its stroke it uncovers the inlet port, and the compressed explosive mixture which was drawn into the gas-tight crank case, or portion below the piston, on the previous upward stroke, is forced into the cylinder and drives out the exhaust gases. The piston then starts on its second stroke, covering the ports and compressing the gas in front of it. Meanwhile a partial vacuum is formed in the crank case, and this draws another charge of the explosive mixture from the carburetor. Just before the top of the stroke is reached a spark occurs in the cylinder and an explosion takes place, thus completing the cycle.

The gas engine is not quite the simple machine that I have tried to make it appear. The ignition systems, the arrangements made for cooling the cylinder, the lubricating devices, the delicate adjustments of the carburetor, etc., make the individual engine a thing to be carefully examined and studied. There are many different styles of engines, fitted with a great variety of appliances and adapted to various uses, so that it is manifestly impossible

to describe all by describing one. But with one exception (an engine in which the fixed cylinder-head is replaced by a second piston so that the explosion drives the pistons in opposite directions), the essential parts of a gas engine are those I have indicated, and it works in the way I have attempted to explain.

II.

THE METAMORPHOSES OF A SHEEP "LIVER FLUKE"

The "liver fluke" is unique in the animal kingdom for the series of emigrations and transformations of which its life history is composed. In the liver of the sheep it starts its life as a simple flat worm about three-fourths of an inch long. But here it produces no young, lest, upon its million or so eggs maturing, the hungry young flukes entirely consume the sheep. Instead the eggs, incased in a hard shell, leave the sheep's body; and, provided they reach a moist place, burst the shell enclosing them, and swim forth as tiny cone-shaped embryos. These embryos, barely visible to the eye, yet equipped with a set of paddle-like hairs, and two eyes, have twelve hours to find a linnean snail or die. Those that do find the snail strike its body with their heads, and by spinning around like a top, bore through its body into the lungs.

Here each embryo loses its hairs and grows into a shapeless sack called the sporocrust or nurse. The nurse in turn proceeds to rear a new brood of parasites, unlike itself, but better adapted to live in the snail. These are little, white, cigar-shaped bags called redia, which burst the sack they were reared in, permeate to the snail's liver, and leave their nurse to die. The redia, equipped with two suckers and an alimentary canal, not only live comfortably here, but produce in their membranous sack of a body a multitude of young redia. Cut open a snail's liver, and you will often see hundreds of these little wriggling parasites, and within them ten or twelve young redia even more active than their parent.

In the spring, however, the redia, for some unknown reason, no longer rears more redia, but an entirely new form, much the shape of a translucent tadpole, called cercaria. The cercaria, by squeezing its little jelly-like body together and by pulling it along, with its sucker, squirms out of the snail's body; and, with a lightning stroke of its tail, swims off to make the most of its short life. Attracted by the sunlight, it swims to the water's surface; but suddenly the wriggling tail drops off and it drifts helpless until caught by some weed or lily pad. Here it secretes a transparent shell and waits, often through much drouth, until an unsuspecting sheep crops it off with the marsh grass. Once in the sheep's stomach it dissolves its shell; emigrates to the liver; and develops into the original "liver fluke."

III.

SPACE PERCEPTION

All objects can be located in space in terms of distance and direction; for instance the building across the street is a certain distance east of me, the front facing me is so many feet north and south, by so many feet high, and the length back into the lot (east) is a given number of feet. The problem of space perception, therefore, resolves itself into two elements, the perception of distance and of direction.

As a basis for the development of these two fundamental ideas, the child is endowed from the beginning with three inborn resources; the sense of touch, the sense of muscular activity and the sense of sight. Entirely independent of heredity, the child accidentally, through unconscious experiments, builds up his individual perception of space according to the activity of these three senses.

At first the child experiences only isolated and varied feelings of touch—a mere uncontrolled succession of collisions and contacts with vague, unseen objects or objects seen with unperceiving eyes. These gropings continue

and, occasionally, as the number of possibilities is limited, some of them are repeated. Such successive repetitions of the same sense of touch form the basis for locating the particular spot touched. As soon as the child perceives that he can repeat a given sensation of touch and is able to repeat that sensation at will, he has located a spot on his body. Moreover the entire use of the sense of touch in space perception is simply to form the basis for the temporary memorizing of the peculiar sense of touch resulting from a few contacts with a particular part of the body.

With these data, i.e., the knowledge of the characteristic feelings produced by touching a few parts of the body, the child, by means of the sense of muscular activity, gains his first definite perception of distance and direction. The amount of muscular activity expended in passing from one of these known locations to another constitutes the fundamental perception of distance. The passage from one location to another, however, uses a different set of muscles than the passage back again—the difference in the kind of muscular activity employed constitutes the fundamental perception of direction. In the case of a blind child this completes his perception of space.

Meanwhile, in a normal child, the sense of sight has developed, and co-ordinated with the sense of touch. The child now knows that he can touch and see objects at the same time and that objects seen afar could be touched if near. His perception of distance is limited only by his powers of locomotion; space is unappreciable which cannot be reached by movement, and unknown when it has not been reached and remembered from past experience. As the child grows older, however, experience with the sense of sight enlarges his knowledge of space. He learns that objects near by are seen more distinctly than those at a distance, that near objects by interposition eclipse those farther away even if they be of equal or greater size, and that the apparent movement of near objects is faster than that of distant objects as seen by a moving person. Moreover his perception of direction is no longer merely the kind of muscular activity required to touch two objects successively, but the amount of effort

expended in turning the body, head and eyes to see two objects successively straight in front of him.

The perfection of fully developed space perception is now merely a matter of time and practice, for habit soon ingrains and facilitates these laborious processes into unconscious, effortless acts, so unconscious, indeed, that the psychologist has had much ado in tracing the process back to its origin.

IV.

PSYCHOLOGY APPLIED TO HEALING

The mind as a curative agent is by no means a new force in the treatment of disease. It has always been employed in one form or another. To be sure, in former times empiricism or quackery prevailed in this field, experimentation resulting only in hazy generalizations; nevertheless, the power of mind over body has been continually exercised in a more or less unconscious manner. However, the scientific and rational application of the idea has been the work of only recent years, and, at the present time, the curing of the sick through mental methods is becoming an important tendency of medical science.

Long before the time of physicians, people became sick, and in some way they recovered. What did our forefathers do in cases of illness, living as they did in rural districts, even before the country variety store carried its supply of remedies? We are told that it was once the belief of some that a red flannel had greater effect than any other in keeping away colds, and that horse chestnuts carried in the pocket prevented rheumatism. In the same way, amber beads were worn to ward off disease, sulphur was carried in the shoes to prevent contagion, and other seemingly superstitious notions were practiced. One is reminded of the incident related in the Bible when Moses had a serpent of brass put on a pole, and when the

people passed by and beheld the serpent they were made well. People have been cured by suggestion; the belief has been produced that they will get well and health has been restored.

Suggestion in healing was not lost sight of with the coming of medical science and physicians. Many doctors will tell you that they have always used the mind cure more or less. Doctors have been known to give the "placebo," a harmless inert drug, to produce the effect, or in another word, the suggestion. The patient gains simply because of the fact that he thinks he has taken medicine. While this method is regarded by many as a form of deceit and quackery, it is true that the personality of the physician may in itself accomplish much. Undoubtedly, much of the good which comes from his visit, often more than results from his prescription, is due to suggestion; his manner and cheerful voice inspire confidence.

A modern instance illustrating the power of mind over body may be found in the recent movement known as Christian Science, a theory of mental healing. Doubtless, many have found relief from it, and they have testified concerning their cures. An eminent physician, Dr. Richard C. Cabot, who made an examination of a large number of Christian Science cures, has recently set forth a discussion based on this investigation. Defining clearly organic disease and functional disease—the former causing deterioration of the tissues of the body, and the latter being due to perverted action of approximately normal organs—Dr. Cabot believes that most of the Christian Science cures are genuine, but that they are not the cures of organic disease. Furthermore, he believes that while Christian Science has done much good, there are fundamental errors which prevent it from attaining greater success. These may be briefly stated as the ignoring of diagnosis, and the lack of coöperation with medical science. In other words, one should find out what the matter is before beginning to cure, and surely before claiming to have cured; and at the same time, ought not to ignore history and what has been accomplished by one's predecessors.

Following the subject from a historical point of view, we should come finally to a movement which is getting its start at the present time. In the first place, it may be said that it endeavors to "prove all things and hold fast to that which is good." Psychotherapy, a rather formidable term, is nothing more or less than the Greek for "mind cure." It is a neutral word and suggests no alliance with faith cure or any special sort of mental healers. It is a medico-religious movement, meant to include all legitimate ways of helping the sick through mental methods. The mind cure has existed all along; that functional disease has been greatly alleviated by such methods has already been demonstrated. Now, the idea is to be given intelligent and scientific application.

Some of the fundamental methods of psychotherapeutics are as follows. Explanation often alleviates suffering. There are two elements in one's suffering, the pain itself and what the individual thinks of it. The pain may not be as bad as the patient thinks it is. You may read a pernicious advertisement which tells you that pain in the back indicates kidney trouble, while a prominent medical specialist has made the statement that kidney trouble is rarely accompanied by pain in the back. The truth alone, a clear explanation of the reality of things as known today by the medical profession, may often perform the cure.

Encouragement is another equally important method known to psychotherapeutics. Physicians have used the very simple method of telling patients that they will recover because so many others, having the same affliction and taking advantage of the same treatment, are now perfectly well. And doctors are testifying as to the power of such simple procedures as this one in dealing with the sick. The application of the method goes still further. Some people need to be shown that they can work. It has been proved that a person sometimes cannot acquire health until some position is obtained where he can be occupied. In some cases it is a really great encouragement for one to realize that he is really worth something and that someone needs him. On the other hand, the "work cure" does not mean drudgery. It is becoming known

that people must be taught how to work and what work satisfies them. The need of the right vocation is often the source of ill health.

Explanation, encouragement, and education are important elements in the definite application of psychology to healing. But there is still something else to be considered and this is of utmost importance. The point of view of the sufferers must not be ignored. It has been said that there is a distinction between a pain and what one thinks of it. What the man thinks of it goes deep in his character, underlies his mental life, his religion, for religion has been defined as the deepest and strongest motive in any human being. Psychotherapy may be and is properly related to religion.

The alliance of religion and medicine, as an organized effort, is to be found in the movement undertaken in Emmanuel Church, Boston. Much has been written on the subject of the movement. The power of the mind over the body is firmly believed at the Emmanuel Clinic, but they believe in medicine also. Treatment of functional disease is carried on, not with the expectation that the mind would accomplish results alone, but, with the aid of the best medical and surgical specialists who have offered their services, this work has been undertaken. All cases receive careful diagnosis by competent physicians and only sufferers from functional disorders are admitted to the clinic where the psychotherapeutic treatment is carried on under the united guidance of competent social workers and physicians. This combination of method has already resulted in considerable success; and it is certainly gratifying to see such a splendid example, such an earnest attempt to give to mankind the best opportunity of life and health.

Having traced the history and effect of mind on healing methods we observe a preponderance of power due to psychological laws alone, but the end is not yet. We have much to learn and may eventually be able to dispense with all kinds of material remedies.

V.

BEN JONSON'S "TIMBER"

Brief as it is, Jonson's "Timber" is yet long enough to give us a peep at "rare Ben" behind the blinds of his literary workshop—sleeves rolled up, feet on the table, a "church warden" resting comfortably on his paunch (for of course he smoked: "sweet tobagy" being discovered a-purpose to solace just such a genially cogitative nature as his). More of the man clings to these scraps of reflection with their Burton-like morasses of classical quotations, than is retained in the polished comedy made ready for the public; just as there is more of the sculptor in the clay model with its thumb marks than there is in the chiselled marble.

Those qualities which made Jonson adorable in the eyes of his followers, and which, in fact, rendered possible "the tribe of Ben," become patent to us as we read "Timber." It will not be necessary to enumerate them in so brief a paper; enough to say that the man who cries, "It profits not me to have any man fence or fight for me, to flourish, or take a side. Stand for truth, and 'tis enough," will never be wanting in defenders and henchmen whether he desire them or no. Aside from his love of honesty, it would appear that common sense is one of Jonson's most distinguishing attributes. In spite of all the weight of his learning he never grows top heavy, but ever makes his feet carry his head as nature intended. Alas that such a combination of erudition and reasonableness should be so rare as to excite remark!

If he frequently sins by overloading his pages with sluggish Latin words, he yet can strike off a phrase that is exquisite in its homeliness and simplicity. Speaking of a certain class of authors, he says, "Their writings need sunshine." Could anything be better put? And likewise the felicity of such a passage as the following needs no comment: "Some words are to be culled out for ornament and color, as we gather flowers to strew houses or make garlands; but they are better when they grow to our style

as in a meadow." A further merit of his style is its vigor. "Some controverters in divinity are like swaggerers in a tavern that catch that which stands next them, the candlestick or pots; turn everything into a weapon: oft-times they fight blindfold, and both beat the air. The one milks a he-goat the other holds under a sieve." The pen that writes after such fashion is always held in a man's fist; it never shakes and quavers for lack of good English brawn.

The last point which I wish to note is Jonson's shrewdness. Underneath his scholarship there runs a vein of that wisdom which men are pleased to call worldly. He walks through the market place with his eyes open to see men and things; he is not deceived by appearances and can tell a stale cabbage from a fresh one. Much of his writing shows an acute perception of the workings of human nature; nor is the edge of this perception blunted by the quizzical humor with which he furbishes forth his observations. His satire hits the mark, his close insight unmasks many pretensions; yet it is kindly, for it proceeds from a broadly tolerant spirit.

VI.

TAYLORS' "HOLY DYING"

Learning, illustrations, eloquence—all the elements which combine to make up the rich texture of Taylor's discourse, cannot disguise the essential unloveliness to which it gives expression. Underneath those wonderfully dyed garments, those imperial purple robes of style, walks a skeleton instead of the true spirit of holiness for whom those costly fabrics were ostensibly woven.

In its time and place the Bishop's manual may have served its purpose well, if, as I take it, that purpose was so to wean life of its rightful and necessary joys that the thought of death would lose much of its terror by comparison therewith. We should not forget that in Taylor's day the reaction from the humanism of the Renaissance

had long set in; in Holland the memory of the Spaniard was yet vivid, in France the forces which matured in the Revocation of the Edict of Nantes were openly at work, and throughout Protestantism there were enough morbid souls to give power to the baleful tenets of Calvinism. In this light we cannot accuse Taylor of undue harshness: we can only regret that his unquestioned powers were devoted to the inculcation of principles whose ethical level is about on a par with that of the old nurse who scares her charge into the paths of virtue by threats of the Bogey Man. Outside of the results which may be obtained from a purely literary study of "Holy Dying," the reading of it leads to a feeling of thankfulness that like the rack and the wheel, it likewise is sleeping the long sleep.

For, stripped of its beauties of expression, what is "Holy Dying" in its last analysis but a compound of sordidness with cruelty? What is Taylor's "holiness" but expediency? He busies himself with the details of repentance that salvation may not be lost through a technical oversight; he counts over his stock of virtues as a tradesman takes tally of his store of goods; like Caliban he propitiates Setebos by a great show of misery, checking off the dismal hours that carry his body nearer to the worms with heart-rending penitential groans. Surely, he seems to argue, if the end justifies the means let us turn the world into a charnel house and mount to heaven on the heaped up carcasses of unfortunate humanity. At no step of his journey does he seem to catch a glimpse of a wider vision; his eye is ever on the main chance, his thought fixed on the snug security of the "many mansions." Righteousness for righteousness' sake does not enter into this sound commercial morality with its careful balancing of losses and gains, its debit and credit accountings. And apart from this utter sordidness what shall we say of the callous heart that can consign "the greatest number of men and women born" to eternal perdition, delivering them over "into the possession of devils, to eternal ages?"

In spite of all, however, when we forget whither Taylor's eloquence would lead us we cannot help being swept on in its torrent. His oration on the vanity of life wells

forth with all the vigor of a Hebrew prophecy, his terrible denunciation of worldliness carries conviction in its magnificent periods, his ardor is the acme of persuasiveness. As a master of sinuous, glowing prose decked out in all the glories of learning, insight, and passion, there is no gainsaying him. "As one crying in the wilderness," our Bishop says, "I that am the meat of worms cry vehemently in spirit." While casting away much of his philosophies we needs must admit the vehemence.

VII.

THE STERNER SIDE OF POETRY

Nowadays it has become almost an unwritten law to idolize Victorian poetry. We laugh at the English public of the last half of the eighteenth century for their blind age-worship and their cock-sure belief in their narrow and conventional poetic ideals. Yet we show the same hide-bound subservience to our own different but equally narrow beliefs. We go into uncritical raptures over the exuberance, the variety, the richness of Victorian poetry. But this is not all. Far from being satisfied with complacently setting our fathers and ourselves upon pedestals, we reject all poetry not consonant with that of our own time. We cannot appreciate the passionate human sympathy and the fitful and unconscious grandeur of the Elizabethan dramatists, the crushing power, the sweep and majesty of Milton's blank verse, the iron march of Dryden's stern couplets, the reckless but vigorous profusion of Shelley and Keats. True, we have claimed for the Victorian poets the exuberance which marks these two last writers. But is the claim defensible? Exuberance in poetry means an audacious and unpremeditated outburst of gorgeous imagery and music. What we call the exuberance of Victorian poetry is really a laborious piling up of rich detail, a conscious search for minute and esoteric novelties. Browning and Swinburne have combined vigor and splendor, but both often lapse into hope-

less vagueness of imagery and tortuosity of style. Tennyson and Rossetti carved out their minute details with all the painful deliberateness of a Cellini adorning a golden helmet. Arnold is repeatedly labored and heavy. Mrs. Browning, straining with the artificiality of a limited imagination after spontaneity of thought and style, too often indulged in sentimentality in place of passion, and crudeness instead of grace and freedom. William Morris was frequently garrulous, facile, and spineless. If we turn to poets of the past we find that Dion and Moschus in Greece, Claudian at Rome, Marini in Italy, show similar characteristics, and we call them decadents.

The attitude towards life of our Victorian poets presents equally serious deficiencies. Never has an age been more fertile in sources for inspiration. Not even the golden age of discovery during Queen Elizabeth's reign, nor the thrilling revival of Hellenism during the Italian Renaissance produced wonders as elevating and inspiring as those brought forth by the sweeping progress of recent science. The great painters of the Italian Renaissance, the great poets of the Elizabethan period drank in the new influences and flamed out like resistless meteors. Tennyson, after giving tentative expression to the spirit of his age, shrank from its final issue—the destruction by science of many well-loved ideals. Rossetti and Morris deliberately turned away from the problems of this era. Arnold lingered in melancholy hesitancy. Browning and Swinburne are again partial exceptions. Both accepted our age in its full significance; but Browning's optimism occasionally comes dangerously near the facile, and Swinburne chose the aloofness of an over-cultured utterance. Even those who accepted the spirit of our age, then, have failed to give to its complex greatness large and virile expression.

It has been an ungenerous task to attack Victorian poetry so harshly, but the point at issue precludes any attempt to show recognition of the really noble qualities of our latest poets. My present concern is to note a serious and a growing weakness in the achievement of Victorian and later day poetry. Our singers have not shown the

intellectual solidity of the greatest poets like Goethe and Calderon; they have not shown the intense moral consciousness which always underlies the massive creations of Aeschylus, Sophocles, and Dante; they have not accepted and exulted in all the problems, the hopes, the fears of their time as did Lucretius and Goethe and Victor Hugo; they lack the wide love and understanding of men that vitalizes the poetry of Chaucer, of Shakspeare, of Schiller. The shrinking, the hesitancy, the growing aloofness of Victorian poetry has reached its culmination. We have been told by recent poets and theorizers upon poetry to banish vexing problems. We are informed that art must exist for art's sake. The group of poets who exploit themselves as decadent tell us that poetry is an escape from life. The great poets of the past seem to have had a far different idea. The function of their poetry is to quicken our lives into a greater and nobler intensity. They widen our human sympathies and make us think more profoundly. But the decadent poets tell us that their songs are non-moral and that they are merely the musical embodiment of an intangible mood. If we have any right to judge poetry by the first principles which we find lying on the surface in the works of the universal singers, we are forced to accept an ugly conclusion. We are compelled to believe that the Victorian poets were gradually losing their grip on some of the most vital properties of their art, and that this weakness has culminated today in an almost complete divorce from the larger laws of song.

The weakness of our poets is indeed deep-seated. They tremble before commercialism, yet commercialism is but a flimsy, pasteboard dragon, ready to fall before the first touch of virile idealism. They fear the disillusionment of science and the tumultuous and motley pageant of a people emancipated by democracy, but the forces from which the poet is shrinking form what should be one of the main causes of his existence. In spite of the apparent indifference of the world to song, the fault is not with the people but with the poets. A true art will arise phoenix-like from the ashes of our decrepitude. Our great poet, when he comes, will crush mammonism into a groveling

insignificance. He will love mankind as Christ did. And the magnificent concepts of science will fill him with exultant inspiration.

To embody the sterner side of poetry, to be large enough for the task of truth seeking, the great singer must have the spirit of intellectual adventure. In other words, he should feel the great longing which makes the strong man more ardent with the increasing hopelessness of this quest for complete knowledge. Then the poet, the scientist, and the metaphysician would work side by side as they should, for their duties are fundamentally identical. The poet of tomorrow must exult in a spirit of skepticism which will free him from narrow faiths and inspire him with an irresistible longing to reach out into the infinite. He should face the immensity of the universe with blazing eyes, as Keats did when he was awakened by Chapman's ringing translation of Homer:

Then felt I like some watcher of the skies
When a new planet swims into his ken;
Or like stout Cortez when with eagle eyes
He stared at the Pacific—and all his men
Look'd at each other with a wild surmise
Silent upon a peak in Darien.

This is the dauntless spirit of intellectual adventure that produces the sterner side of poetry.

The great poet of the future must have one other fundamental quality. Mr. Yeats, in one of the most stimulating essays of recent years, has asserted that the poet is the priest. If this be true, the need for him is growing, because the hunger for his noble and sympathetic ministrations will rapidly become compelling. The dead and baseless formalism of contemporary religion offers little solace to an age disillusioned by science and corrupted by mammonism. The result is that the great masses of people are drifting restlessly, uninfluenced by any sound system of thought. Some renounce the church; others accept its dictates in theory and pitch their lives in violent opposition to its most fundamental religious and ethical tenets. The great mass of people are wandering in idle uncertainty. A few, a little more thoughtful, seek a cowardly refuge in cheap

forms of mysticism. Such a spectacle as this weltering sea of humanity would startle a true poet into commanding genius. The real singer does not devote himself to morbid introspection, but is impelled by an intense human sympathy. He is filled with the spirit of revolt against dead and corrupted beliefs. He is filled with the spirit of wonder and longing before ideals unattained. Dowered with the spirit of adventure he would delude men with no false hopes but he would quicken them into a more intense consciousness. He would stem the mad scramble for optimism, so prevalent today, with a spirit of pitiless denial. But along with his stern criticism he would bring them ennobled aspirations. Marlowe, aflame with the tremendous Elizabethan awakening, has described this very spirit of truth-seeking in some matchless lines :

Nature that framed us of four elements
Warring within our breasts for regiment,
Doth teach us all to have aspiring minds;
Our souls whose faculties can comprehend
The wondrous architecture of the world,
And measure every wandering planet's course,
Still climbing after knowledge infinite,
And always moving as the restless spheres,
Will us to wear ourselves and never rest.

This is the indomitable spirit of intellectual adventure which inspires the singer with the sterner side of poetry and makes him a savior of men.

VIII.

A playwright's style is shaped and limited by the conditions under which he must work. These conditions apply to the playwright alone, and are quite imperative in their nature. In the first place, he must say a great deal in a very limited time, for the drama is a highly condensed form of literature. In the second place, he must make himself understood on the first hearing, for the audience at a theatre has no opportunity to linger over a shadowy passage and extract fine shades of meaning from it. Two essential elements of his style, then, must be terseness and

lucidity. In addition to these it must also have great flexibility in order that his people may speak "in character"—that is, his fishwives must speak in the vernacular of fishwives, and his kings after the manner of royalty. At times, too, he must have the power of phrasing a thing so that it will strike the audience like a clap of thunder; he must be able to point a remark so that it will stick in the memory like a burr. These are the fundamentals of a playwright's style, and not until he has mastered them thoroughly should he attempt to embellish his dialogue with softer literary graces.

IX.

There are a certain number of modest little books in the world which tickle our vanity mightily in the reading. These books are of such a quality as to remain ever unnoticed by the industrious army which our literary periodicals refer to as "the great reading public." Students of literature may read them, but in much the same manner as a farmer's boy does his chores; it remains to a few—the few, I might say—to really love and enjoy them. And if we are of this select and chosen number—if, for example, we prefer a half-hour with Walter Savage Landor's "Imaginary Conversations" to a chapter from the most enticing romance of the hour—what food for complacent reverie lies in the realization of the fact. We feel ourselves lifted above the rank and file. "Poor Jones, or poor Brown," we say, "what a gulf lies between us! This most amusing discourse between Fra Filippo Lippi and Eugenius would be mere rubbish to you. The subtleties of the satire, the incisive strokes which lay bare the contrasted characters, would all be lost in the fogs of your dull brain. You lack the insight, the artistic sympathy, the penetration of that sixth sense called critical acumen, necessary to a just appreciation of this man Landor." And thus we go on to flatter ourselves by implication; and the fire of vanity burns with a steady and not unpleasant warmth.

X.

THE OLD THEORY

Thousands and thousands of years ago, a monkey climbed, one evening, into a tall tree. He had been there many times before, but this evening something happened, something unusual. For the smooth tree-bark was slippery with the rain which had fallen all day long, and the monkey, careless on account of familiarity with danger, by some unheard of accident lost his hold and fell. Down he went, brushing against the yielding leaves, dashing through the crackling twigs, and almost to the ground. But just in time a stout branch interposed itself; the fall was broken; and in half a second, with his tail firmly wrapped around the bough, the monkey snuggled up to the trunk of the tree and thought. Then he went about his business, and did not alter his manner of life on account of a fall. In truth, he fell many times after this first accident and after each fall he thought a little about it, and an impression was made on his mind by these rushes toward the earth, which always stopped before the dreaded goal was reached. He always stopped in time because he was a fortunate beast, but he saw many a brother, whose fate was not so happy, fall and keep on falling till he struck hard ground. And in that case nothing happened, for dead monkeys do not think.

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Many cycles have passed since the monkey's first fall. It is evening again, and a son of Adam lies down to rest. He goes to sleep and dreams. He is falling, falling from some awful height. Down he rushes, down, down—and then the fall ceases.—And he wakes up.

PART II.

ARGUMENT

THE RELATIONS BETWEEN INTERNATIONAL TRIBUNALS OF ARBITRATION AND THE JURISDICTION OF NATIONAL COURTS

The growing tendency towards international arbitration brings into special consideration and importance the relation between the jurisdiction of National Courts of Justice and International Tribunals of Arbitration.

When one nation urges claims in behalf of its citizens upon the government of another nation and proposes arbitration, how far does that other nation's respect for its own independent sovereignty and for the integrity of its own judicial system require it to insist that the claims be submitted for final decision to its own national courts?

The true basis for the consideration of this question is in the nature of the obligation which constrains a nation to submit questions to any tribunal whatever.

That there is no legal obligation to make any submission, that is to say, that it is not required by any rule imposed by a superior power, is a corollary from our conception of sovereignty. Sovereignty involves the right to determine one's own actions—to pay or not to pay, to redress injury or not to redress it, at the will of the sovereign, subject only to the necessary conditions created by the existence of other equally independent states. So far as questions arise out of contract, Alexander Hamilton states the strongest view of national freedom from restraint in a passage often quoted in recent years :

Contracts between a nation and private individuals are obligatory, according to the conscience of the sovereign, and may not be the object of compelling force. They confer no right of action contrary to the sovereign will.

So far as questions arise out of alleged wrongs by one government against a citizen of another, the sovereignty of one nation is merely confronted by another sovereignty, which is itself equally supreme within its own limits. Wherever the true lines are to be drawn between two mutually exclusive sovereignties, each is supreme and subject to no compulsion on its own side of the line. Wherever there is infringement by one on the other there exists the right of adverse action, which involves no impeachment of independent sovereignty, but follows necessarily from the contact of two independent powers. Whatever modifications international lawyers urge to the broad statement of doctrine to which Doctor Calvo has given his name, so ably enforced by his successor, Dr. Drago, there is no effective dispute regarding the foundation of his main proposition, regarding the essential nature of sovereignty.

The conditions under which this sovereign power is exercised among civilized nations do, however, impose upon it important limitations, just as the conditions under which individual liberty is enjoyed in a free civil community impose limitations upon individual conduct in matters not at all controlled by law. Municipal law does not, in general, undertake to compel men to be virtuous, truthful, sober, fair, polite, and considerate of others. Yet the existence of civil liberty is conditioned upon the existence of a community standard of conduct quite independent of legal compulsion, and extending far beyond the limits touched by any statute. The member of a community who chooses to use his individual liberty to violate that standard conspicuously, meets severe punishment in the loss of respect, confidence, and esteem, and in the consequences of that loss. Another very effective limitation upon conduct is the knowledge that certain courses of conduct quite within one's legal rights may lead some other man to use his individual freedom, to do one injury. The compulsion which such considerations produce upon individual action is no more an infringement upon individual liberty than is the effect caused by the knowledge that fire will burn and water will drown. The

individual in each case regulates his own conduct in accordance with his own will.

The assertion of independent sovereignty of nations is but another expression of the individual liberty of each nation in the community of nations. In its practical application it is of modern acceptance, superseding the old idea that each nation, tribe, or group of people under whatever chieftain, leader, sovereign, or government, was entitled to hold such territory and exercise such control over its own conduct, as it could maintain by force of arms, and no more.

The theory of independent sovereignty, entitled to be respected by all mankind without regard to its power to maintain itself by force, could find no place in the world except in coincidence with a standard of international conduct to which the nations generally, in the exercise of their individual sovereignty, conform, each without compulsion of any other power, but voluntarily.

The chief principle entering into this standard of conduct is that every sovereign nation is willing at all times and under all circumstances to do what is just. That is the universal postulate of all modern diplomatic discussion. No nation would for a moment permit its own conformity to the standard in this respect, to be questioned. The obligation which this willingness implies is no impeachment of sovereignty. It is voluntarily assumed as an incident to the exercise of sovereignty because it is essential to a continuance of the conditions under which the independence of sovereignty is possible. This obligation is by universal consent interpreted according to established and accepted rules as to what constitutes justice under certain known and frequently recurring conditions; and these accepted rules we call international law. No demand can ever be made by one nation upon another to give redress in any case but that the demand is met by an avowed readiness to do justice in that case, and upon that demand in accordance with the rules of international law. No compulsion upon sovereignty is needed to reach that result.

The only question that can arise upon such a demand is the question, "What is just in this case?" In that necessary condition of agreement upon the underlying principle to be followed, a common duty is presented to both nations to ascertain and determine what is just.

It is not usually a simple or easy thing to determine what is just as between a nation and either its own citizens or the citizens of other nations. Upon one conclusion all civilized nations are in accord—that the executive and administrative officers of government cannot be depended upon to make such determinations. Civilized nations uniformly provide machinery for judicial decision of such questions so that the views of executive and administrative officers in rejecting claims may be reviewed and controlled. The grant of jurisdiction to courts or the creation of courts to exercise such jurisdiction is no disparagement of the officers whose views of what is just are thus called in question. Sovereigns and presidents and ministers and department officers are not insulted by such provisions, or because the common sense of justice recognizes that their relation to the questions which arise between the government which they conduct, and others, is such that they can not well be impartial.

The whole system by which sovereign states permit themselves to be sued in courts vested with jurisdiction for that purpose is in recognition of the fundamental rule of right that none shall be a judge in his own case.

That same great rule cannot be ignored when the question is whether the decision of a national court is to be taken as a final and satisfactory ~~determination~~ of what is just in an international case, to which the judge's own country is a party. For after all judges are but men. They are part of the government that is called in question. They are subject to the influence of their environment. They cannot always escape all the influences of popular feeling and prejudice in their own communities. The political fortunes of the very officials who appointed them to the bench or their own tenure of office may perhaps be at stake upon their action. They cannot help bringing to the bench strong tendencies and predilections in favor of

their own countrymen's ways of acting and thinking. They desire the approbation of their fellow citizens, and in cases of public interest it may be much harder to decide against than for their own country. It is difficult for a foreigner to understand and avail himself of their modes of reasoning, their rules of evidence and of procedure, and the precedents they follow. If there is a difference of languages a stranger is at a great disadvantage. He may often lose his case through not knowing how to do his part towards maintaining it.

There are many circumstances varying in different countries and in different cases which tend to strengthen or to weaken these obstacles to a satisfactory attainment of justice. The general state of feeling in the country of trial toward the country of the complainant and its effect upon the atmosphere of the court room, that every experienced lawyer knows to be so important, is one of these circumstances. The relative importance of the case in proportion to the resources of the country—whether an adverse decision would make a slight or a great difference to the government or the people, is another. Whether the action of the executive has been generally discussed and has assumed political importance is another.

Every country is entitled to follow its own judgment and is not subject to criticism for following its own judgment, as to the degree of independence it shall give to its judiciary, yet it cannot well be denied that with human nature as it is, there is less certainty of an impartial decision from judges removable at will in a case calling in question the acts of the appointing and removing power, than from judges whose tenure of office is not dependent upon the executive. The decision of such a dependent court is liable to be affected by the same infirmities which the whole world recognizes as making the determination of the executive itself, an unsatisfactory method of concluding the search for justice.

It should not be forgotten that it is not only desirable to have justice done; but also to have men believe that justice is done. That belief is important to respect for law among the people within each nation and to the mainte-

nance and growth of respect and friendship between the peoples of different nations.

Of course there are many cases falling naturally into the ordinary routine of national judicial procedure—cases plainly not presenting the elements of prejudice which would prevent reaching justice through that procedure. Of course there are many great international questions which no one would ever propose to lay before a national tribunal. Between these two extremes there is a wide range of cases in which national courts may exercise jurisdiction, but to which the considerations that I have suggested apply. When such cases arise the international question is not one of compulsion or derogation from sovereignty, but it is: How shall two nations desiring to ascertain what is the truth of justice in this case reach a decision? By what procedure and before what tribunal can that end best be attained?

If recourse to arbitration is a reflection upon national courts, the people of the United States have been strangely obtuse, for nowhere in the world, surely, is greater honor paid to the courts of justice, yet we have embodied in the fundamental law which binds our states together a recognition of the liability of courts to be affected by local sentiment, prejudice, and pressure. We have provided in the third article of the Constitution of the United States that in controversies between states or between citizens of different states the determination of what is just shall not be confined to the courts of justice of either state, but may be brought in the Federal tribunals, selected and empowered by the representatives of both states and of all the states—true arbitral tribunals in the method of their creation and the office they perform.

Alexander Hamilton explains this provision in *The Federalist* in these words:

The reasonableness of the agency of the National courts in cases in which the state tribunals cannot be supposed to be impartial, speaks for itself. No man ought certainly to be a judge in his own cause, or in any cause in respect to which he has the slightest interest or bias. This principle has no inconsiderable weight in designating the Federal courts as the proper tribunals for the determination of controversies between different states and their

citizens. And it ought to have the same operation in regard to some cases between the citizens of the same state. Claims to lands under grants of different states founded upon adverse pretension of boundary are of this description. The courts of neither of the granting states could be expected to be unbiased. The laws may have even prejudged the question and tied the courts down to decisions in favor of the grant of the state to which they belonged. And where this has not been done it would be natural that judges as men should feel as strong predilection to the claims of their own government.

The whole world owes too much to the Constitution of the United States to think little of its example. Especially the American nations, which have drawn from that great instrument their forms of government and the spirit of their free institutions, must regard with respect the lesson which it teaches.

The proud independent sovereign commonwealths like Virginia and Pennsylvania and New York and Massachusetts, which formed the American Union, revered their judges. They were prepared to give, and did give to their courts a degree of authority over them and over their executives and legislatures without precedent in the history of free government; but they also revered justice; they prized peace and concord and friendship and brotherhood between the states and their citizens. A century and a half of free self-government had brought to them the lessons and the self-restraint of experience. They knew the limitations of good men and the essential conditions of doing justice. In that great cause they allowed no small local jealousies to bar the way. When the ever recurring question arises between submission of controversies to international arbitration on the one hand and insistence upon the jurisdiction of National tribunals on the other, the nations who look to the framers of the American Constitution as an example of high constructive statesmanship and wisdom should not fail to find in this judgment, matter to arrest their attention and influence their action.

No court in the world has greater power and independence and honor than the Supreme Court, established under the Constitution of the United States, yet our government, by international agreement, has submitted to international

tribunals many cases which could have been, and many cases which already had been, decided by that great court. For example, the cases of the Peterhof, reported in Wallace's Reports, Volume 5; the Dashing Wave (5 Wallace); the Georgia (7 Wallace); the Isabella Thompson (3 Wallace); the Pearl (5 Wallace); the Adela (6 Wallace), had all been decided by the Supreme Court, and they were resubmitted to an international tribunal, which decided them in the same way the court had decided them.

The cases of the Hiawatha (2 Black); the Circassian (2 Wallace); the Springbock (5 Wallace); the Sir William Peel (5 Wallace); the Volant (5 Wallace); the Science (5 Wallace), had all been decided by the Supreme Court, and they were resubmitted to an international tribunal, which decided them adversely to the decisions of the court, and the United States complied with the decisions of the arbitral tribunal.

It is true that the rule is undisputed that where there has been a denial of justice in national courts their decisions are not to be held conclusive, and arbitration or other further action may be called for. Unfortunately it has been necessary often in the past, to invoke this rule; but it is an unsatisfactory rule and injurious in its effects. It involves an indictment and trial of the judicial system under which the denial of justice is alleged to have occurred. It involves aspersions upon government, imputations upon high officials, incitement to anger and resentment, and tends to destroy rather than to preserve good feeling and friendship between the nations concerned.

The better rule would be, to avoid the danger of denials of justice, and to prevent the belief that justice has not been done, which must always possess the parties defeated in a tribunal suspected of partiality, by submitting in the first instance to an impartial arbitral tribunal all such cases as are liable to be affected by the considerations I have mentioned.

And the reason of such a rule would require that when such cases have been decided already by national courts, and the impartial justice of the decision is seriously ques-

tioned, upon substantial grounds, they should be resubmitted to an arbitral tribunal, not for proof that justice has been denied, but for rehearing upon the merits because self-respect and intelligent self-interest forbid a nation to shelter itself behind decisions of its own courts that rest under the imputation of partiality, or to be content with any but the best means and the most sincere effort to learn what is just in order that the nation may do what is just.

Elihu Root.

LETTER ON IMPRESSMENT

Department of State,
Washington, August 8, 1842.

My Lord,—We have had several conversations on the subject of impressment, but I do not understand that your lordship has instructions from your government to negotiate upon it, nor does the government of the United States see any utility in opening such negotiation, unless the British government is prepared to renounce the practice in all future wars.

No cause had produced to so great an extent, and for so long a period, disturbing and irritating influences on the political relations of the United States and England, as the impressment of seamen by British cruisers from American merchant vessels.

From the commencement of the French revolution to the breaking out of the war between the two countries in 1812 hardly a year elapsed without loud complaint and earnest remonstrance. A deep feeling of opposition to the right claimed and to the practice exercised under it, and not unfrequently exercised without the least regard to what justice and humanity would have dictated, even if the right itself had been admitted, took possession of the public mind of America, and this feeling, it is well known, coöperated most powerfully with other causes to produce the state of hostilities which ensued.

At different periods, both before and since the war, negotiations have taken place between the two govern-

ments, with the hope of finding some means of quieting these complaints. At some times, the effectual abolition of the practice has been requested and treated of; at other times, its temporary suspension; and at other times, again the limitation of its exercise, and some security against its enormous abuses.

A common destiny has attended these efforts; they have all failed. The question stands at this moment where it stood fifty years ago. The nearest approach to a settlement was a convention proposed in 1803, and which had come to the point of signature, when it was broken off in consequence of the British government insisting that the *narrow seas* should be expressly excepted out of the sphere over which the contemplated stipulation against impressment should extend. The American minister, Mr. King, regarded this exception as quite inadmissible, and chose rather to abandon the negotiation than to acquiesce in the doctrine which it proposed to establish.

England asserts the right of impressing British subjects, in time of war, out of neutral merchant vessels, and of deciding by her visiting officers who, among the crews of such merchant vessels, are British subjects. She asserts this as a legal exercise of the prerogative of the crown; which prerogative is alleged to be founded on the English law of perpetual and indissoluble allegiance of the subject, and his obligation under all circumstances, and for his whole life, to render military service to the crown whenever required.

The statement, made in the words of eminent British jurists, shows at once that the English claim is far broader than the basis of platform on which it is raised. The law relied on is English law; the obligations insisted on are obligations existing between the crown of England and its subjects. This law and these obligations, it is admitted, may be such as England may choose they shall be. But then they must be confined to the parties. Impressment of seamen out of and beyond English territory, and from on board the ships of other nations, is an interference with the rights of other nations; it is further, therefore, than English prerogative can legally extend; and is nothing but

an attempt to enforce the peculiar law of England beyond the dominions and jurisdiction of the crown. The claim asserts an extra-territorial authority for the law of British prerogative, and assumes to exercise this extra-territorial authority to the manifest injury and annoyance of the citizens and subjects of other states, on board their own vessels, on the high seas.

Every merchant vessel on these is rightfully considered as part of the territory of the country to which it belongs. The entry, therefore, into such vessel, being neutral, by a belligerent, is an act of force, and is, *prima facie*, a wrong, a trespass, which can be justified only when done for some purpose allowed to form a sufficient justification by the law of nations. But a British cruiser enters an American merchant vessel in order to take therefrom supposed British subjects; offering no justification, therefore, under the law of nations, but claiming the right under the law of England respecting the king's prerogative. This cannot be defended. English soil, English territory, English jurisdiction, is the appropriate sphere for the operation of English law. The ocean is the sphere of the law of nations; and any merchant vessel on the seas is by that law under the protection of the laws of her own nation, and may claim immunity, unless in cases in which that law allows her to be entered or visited.

If this notion of perpetual allegiance, and the consequent power of the prerogative, were the law of the world; if it formed part of the conventional code of nations, and was usually practiced, like the right of visiting neutral ships for the purpose of discovering and seizing enemy's property, then impressment might be defended as a common right, and there would be no remedy for the evil till the national code should be altered. But this is by no means the case. There is no such principle incorporated into the code of nations. The doctrine stands only as English law, not as a national law; and English law cannot be of force beyond English dominion. Whatever duties or relations that law creates between the sovereign and his subjects can be enforced and maintained only within the realm, or proper possessions or territory of the

sovereign. There may be quite as just a prerogative right to the property of subjects as to their personal services, in an exigency of the state; but no government thinks of controlling by its own laws property of its subjects situated abroad; much less does any government think of entering the territory of another power for the purpose of seizing such property and applying it to its own uses. As laws, the prerogatives of the crown of England have no obligation on persons or property domiciled or situated abroad.

“When, therefore,” says an authority not unknown or unregarded on either side of the Atlantic, “we speak of the right of a state to bind its own native subjects everywhere, we speak only of its own claim and exercise of sovereignty over them when they return within its own territorial jurisdiction, and not of its right to compel or require obedience to such laws, on the part of other nations, within their own territorial sovereignty. On the contrary, every nation has an exclusive right to regulate persons and things within its own territory, according to its sovereign will and public polity.”

The good sense of these principles, their remarkable pertinency to the subject now under consideration, and the extraordinary consequences resulting from the British doctrine, are signally manifested by that which we see taking place every day. England acknowledges herself overburdened with population of the poorer classes. Every instance of the emigration of persons of those classes is regarded by her as a benefit. England, therefore, encourages emigration; means are notoriously supplied to emigrants, to assist their conveyance, from public funds; and the New World, and most especially these United States, receive the many thousands of her subjects thus ejected from the bosom of their native land by the necessities of their condition. They come away from poverty and distress in overcrowded cities, to seek employment, comfort, and new homes in a country of free institutions, possessed by a kindred race, speaking their own language, and having laws and usages in many respects like those to which they have been accustomed; and a

country which, upon the whole, is found to possess more attractions for persons of their character and condition than any other on the face of the globe. It is stated that, in the quarter of the year ending with June last, more than twenty-six thousand emigrants left the single port of Liverpool for the United States, being four or five times as many as left the same port within the same period for the British colonies and all other parts of the world. Of these crowds of emigrants, many arrive in our cities in circumstances of great destitution, and the charities of the country, both public and private, are severely taxed to relieve their immediate wants. In time they mingle with the new community in which they find themselves and seek means of living. Some find employment in the cities, others go to the frontiers, to cultivate lands reclaimed from the forest; and a greater or less number of the residue, becoming in time naturalized citizens, enter into the merchant service, under the flag of their adopted country.

Now, my lord, if war should break out between England and a European power, can anything be more unjust, anything more irreconcilable to the general sentiments of mankind, than that England should seek out these persons, thus encouraged by her and compelled by their own condition to leave their native homes, tear them away from their new employments, their new political relations, and their domestic connections, and force them to undergo the dangers and hardships of military service for a country which has thus ceased to be their own country? Certainly, certainly, my lord, there can be but one answer to this question. Is it not far more reasonable that England should either prevent such emigration of her subjects, or that, if she encourage and promote it, she should leave them, not to the embroilment of a double and contradictory allegiance, but to their own voluntary choice, to form such relations, political or social, as they see fit in the country where they are to find their bread, and to the laws and institutions of which they are to look for defense and protection?

A question of such serious importance ought now to be

put at rest. If the United States give shelter and protection to those whom the policy of England annually casts upon their shores; if, by the benign influences of their government and institutions, and by the happy condition of the country, those emigrants become raised from poverty to comfort, finding it easy even to become landholders, and being allowed to partake in the enjoyment of all civil rights; if all this may be done (and all this is done, under the countenance and encouragement of England herself), is it not high time, my lord, that, yielding that which had its origin in feudal ideas as inconsistent with the present state of society, and especially with the intercourse and relations subsisting between the Old World and the New, England should at length formally disclaim all right to the services of such persons, and renounce all control over their conduct?

But impressment is subject to objections of a much wider range. If it could be justified in its application to those who are declared to be its only objects, it still remains true that, in its exercise, it touches the political rights of other governments, and endangers the security of their own native subjects, and citizens. The sovereignty of the state is concerned in maintaining its exclusive jurisdiction and possession over its merchant ships on the seas, except so far as the law of nations justifies intrusion upon that possession for special purposes; and all experience has shown, that no member of a crew, wherever born, is safe against impressment when a ship is visited.

The evils and injuries resulting from the actual practice can hardly be overrated, and have ever proved themselves to be such as should lead to its relinquishment, even if it were founded in any defensible principle. The difficulty of discriminating between English subjects and American citizens has always been found to be great, even when an honest purpose of discrimination has existed. But the lieutenant of a man-of-war, having necessity for men, is apt to be a summary judge, and his decisions will be quite as significant of his own wants and his own power, as of the truth and justice of the case. An extract from a letter of Mr. King, of the 13th of April, 1797, to the

American secretary of state, shows something of the enormous extent of these wrongful seizures.

“Instead of a few, and these in many instances equivocal cases, I have,” says he, “since the month of July past, made application for the discharge from British men-of-war of two hundred and seventy-one seamen, who, stating themselves to be Americans, have claimed my interference. Of this number, eighty-six have been ordered by the admiralty to be discharged, thirty-seven more have been detained as British subjects or as American volunteers, or for want of proof that they are Americans, and to my applications for the discharge of the remaining one hundred and forty-eight I have received no answer, the ships on board of which these seamen were detained having, in many instances, sailed before an examination was made in consequence of my application.

“It is certain that some of those who have applied to me are not American citizens, but the exceptions are, in my opinion, few, and the evidence, exclusive of certificates, has been such as, in most cases, to satisfy me that the applicants were real Americans, who have been forced into the British service, and who, with singular constancy, have generally persevered in refusing pay or bounty, though in some instances they have been in service more than two years.”

But the injuries of impressment are by no means confined to its immediate subjects, or the individuals on whom it is practiced. Vessels suffer from the weakening of their crews, and voyages are often delayed, and not unfrequently broken up, by subtraction from the number of necessary hands by impressment. And what is of still greater and more general moment, the fear of impressment has been found to create great difficulty in obtaining sailors for the American merchant service in times of European war. Seafaring men, otherwise inclined to enter into that service, are, as experience has shown, deterred by the fear of finding themselves ere long in compulsory military service in British ships of war. Many instances have occurred, fully established in proof, in which raw seamen, natives of the United States, fresh from the fields of agri-

culture, entering for the first time on shipboard, have been impressed before they made the land, placed on the decks of British men-of-war, and compelled to serve for years before they could obtain their release, or revisit their country and their homes. Such instances become known, and their effect in discouraging young men from engaging in the merchant service of their country can neither be doubted nor wondered at. More than all, my lord, the practice of impressment, whenever it has existed, has produced, not conciliation and good feeling, but resentment, exasperation, and animosity between the two great commercial countries of the world.

In the calm and quiet which have succeeded the late war, a condition so favorable for dispassionate consideration, England herself has evidently seen the harshness of impressment, even when exercised on seamen in her own merchant service, and she has adopted measures calculated, if not to renounce the power or to abolish the practice, yet at least to supersede its necessity by other means of manning the royal navy more compatible with justice and the rights of individuals, and far more conformable to the spirit and sentiments of the age.

Under these circumstances, the government of the United States has used the occasion of your lordship's pacific mission to review this whole subject, and to bring it to your notice, and that of your government. It has reflected on the past, pondered the condition of the present, and endeavored to anticipate so far as might be in its power, the probable future; and I am now to communicate to your lordship the result of these deliberations.

The American government, then, is prepared to say that the practice of impressing seamen from American vessels cannot hereafter be allowed to take place. That practice is founded on principles which it does not recognize, and is invariably attended by consequences so unjust, so injurious, and of such formidable magnitude, as cannot be submitted to.

In the early disputes between the two governments on this so long contested topic, the distinguished persons to whose hands were first entrusted the seals of this depart-

ment, declared, that "the simplest rule will be, that the vessel being American shall be evidence that the seamen on board are such."

Fifty years' experience, the utter failure of many negotiations, and a careful reconsideration now had, of the whole subject, at a moment when the passions are laid, and no present interest or emergency exists to bias the judgment, have fully convinced this government that this is not only the simplest and best, but the only rule, which can be adopted and observed, consistently with the rights and honor of the United States and the security of their citizens. That rule announces, therefore, what will hereafter be the principle maintained by their government. In every regularly documented American merchant vessel the crew who navigate it will find their protection in the flag which is over them.

This announcement is not made, my lord, to revive useless recollections of the past, nor to stir the embers from fires which have been, in a great degree, smothered by many years of peace. Far otherwise. Its purpose is to extinguish those fires effectually, before new incidents arise to fan them into flame. The communication is in the spirit of peace, and for the sake of peace, and springs from a deep and conscientious conviction that high interests of both nations require that this so long contested and controverted subject shall now be finally put to rest. I persuade my self that you will do justice to this frank and sincere avowal of motives, and that you will communicate your sentiments in this respect to your government.

This letter closes, my lord, on my part, our official correspondence; and I gladly use the occasion to offer you the assurance of my high and sincere regard.

Daniel Webster.

Lord Ashburton, etc.

INDUSTRIAL EDUCATION

This paper contends that an efficient public school system must include adequate provision for vocational training for persons of both sexes over fourteen years of age.

Two important phases of the subject under discussion cannot be treated specifically in this paper, and one closely related phase of education, equally important, cannot be discussed at all. I shall be able to refer only incidentally to industrial education for girls, and to agricultural education for boys and girls; and I shall have to omit all discussion of commercial education. I need all the space at my disposal for the discussion of the general problem of industrial education, with special reference to the training of recruits for our leading mechanical industries.

Heretofore we have planned the work of our public schools almost entirely with reference to "culture;" we have done very little to stimulate a vocational purpose, and less still to provide for the realization of that purpose. In other words, while the schools have laid stress on culture as the end of education, they have laid almost no stress on preparation for a vocation. We may go farther, and say that, not infrequently, the schools have even disparaged vocational purposes in the training they give. They have been afraid of "utilitarian" aims, and sometimes, by a curiously inadequate conception of their real function, they have even measured their own usefulness by the extent to which they have kept the distinctly useful out of their work.

By way of illustration I need only cite the difficulty we have had in getting manual training for boys, and sewing and cooking for girls, recognized as appropriate school subjects or activities. Manual training is not vocational training, to be sure, as will be shown later on; but, whatever manual training may be, its bearing on such training is clear. And it was this obvious bearing on preparation for the vocation of the artisan and the engineer that caused the first advocates of manual training after our

Centennial Exposition to urge its claims on the attention of the schools. But so strong was the opposition to teaching a utilitarian subject in the public schools that the claims of manual training for recognition have been based, until quite recently, chiefly on its "psychological" value. I do not wish to belittle the psychological value of manual training, but the strongest reason for giving it a place in our scheme of public education is that it introduces our youth to a sympathetic understanding of the constructive activities which constitute so important a part of contemporary life. It has not been entirely possible to rob manual training of its distinctly useful quality in public elementary and secondary education, although the attempt has sometimes been made. Nevertheless, in many schools it has been pretty thoroughly academicized. This is one reason why so few of the pupils and graduates of our manual training schools become craftsmen. The manual training, like other school activities, has been used largely as a means of "general education" regarded as an end in itself or as preparation for further (usually technical) education. As for sewing and cooking, they too have been urged for their "psychological" value. But there has been more speedy recognition of the weightiest reason for giving them a place in the schools—namely, their *supreme usefulness*, in view of contemporary social conditions and of our enormous and increasing immigrant population.

It is strange that we should be so reluctant to admit the distinctly useful into our scheme of public elementary and secondary education—that is, to admit that one of the functions of the public schools is to recognize the claims of elementary vocational training as entirely legitimate and desirable. For the principle of vocational training at the public expense has long been recognized in the field of higher education. The state normal schools of the country have educated teachers since 1839; the state universities have educated teachers, lawyers, doctors, druggists, and engineers, and they continue to do so; and the state agricultural colleges give training in agriculture, and often in engineering. Massachusetts, though without a state uni-

versity, has long aided technical education by scholarships in the Massachusetts Institute of Technology in Boston, and the Polytechnic Institute in Worcester, and by direct grants of money to those institutions. Massachusetts also maintains, partly at public expense, three textile schools for the training of textile workers who desire to rise in their calling.

Our elementary schools and our high schools together constitute, theoretically at least, one continuous educational scheme through which a youth, whatever his circumstances in early life may be, may secure the elements of general culture; and through which, if his circumstances permit, he may attain, on the basis of the preparation secured in school, a college education, or enter at once on professional study in nearly all the professional schools of the country. We have thus planned our educational scheme primarily in the interests of those who have a long educational career ahead of them, and who need not therefore give any immediate attention to preparation for a life pursuit.

Nevertheless, it is well known that the greater mass of our children and youth are obliged to leave school at the end of the grammar school period, or when they have attained the upper limit of the compulsory school age—fourteen years, in most states. That is to say, the public school system in which we take a just pride, as now planned, does not reach the great majority of our youth during the critical period of adolescence. This is the period when life aims begin to have a serious and lasting importance; when the child becomes a youth; when the habits formed rapidly acquire permanence; when the plasticity of earlier years gives place to stability. And because this is so, what happens to him then is likely to permanently shape his future. Yet during this period we send the great majority of our youth into the world without further systematic educational influence, and usually without any comprehension of the serious purposes of life, or training in the endeavor to realize them.

The question which we have to answer is: What becomes of the great majority of these young people who enter

their active life work at the early age of fourteen, with no preparation save that offered by the general education of the elementary schools? Some inquiry was made into this question in Massachusetts two years ago, and it was found that there are probably no less than twenty-five thousand boys and girls between the ages of fourteen and sixteen who are not in school. They are at work in various kinds of juvenile occupations, or they are idle. The boys become elevator boys, errand boys, office boys, they drive a wagon, or do other work in which they learn nothing, in which no demand is made on them for the application of what they learned in school; and consequently, by the time they are seventeen, eighteen, twenty or more years of age they have an earning capacity but little greater than that which they had when they first left school.* And a similar fate overtakes the girls. Moreover, the unfortunate education of shifting experience and environment during these years does much to destroy both the substance and the spirit of the education which they received when in school. The result is that at the threshold of citizenship the great majority of these young people are actually more ignorant than they were when they left school. They are sophisticated, to be sure; but they have seldom acquired the characteristics of substantial manhood and womanhood; and, as I have just said, economically they are but little more valuable than they were when they began to work. They have not become increasingly valuable "economic units." And the reason, of course, is that in the unskilled pursuits which they have followed it was impossible to acquire the character, knowledge, and skill which would give them an earning capacity proportionate to their years.

A striking illustration of what I am saying was offered by the elevator boy in a Boston building, last spring. This boy said, "Can't you find me a job that would pay me better?" "How old are you?" he was asked. "Twenty-one." "What can you do?" "Well, you see, I left school at fifteen; I have drifted about from one thing to another since; recently my father died, and I find it necessary to earn more in order to help myself and my family." Here was a youth twenty-one years of age, with no capacity to

do anything that is worth paying more for than the sum paid for the juvenile services that he had been engaged in since he was fifteen years old. This case is probably typical of the great majority of the twenty-five thousand young people in Massachusetts to whom I have referred. And it is only too probable that what is true of Massachusetts is true of other states. The investigation referred to also revealed the fact that a large proportion—the majority—of these children would be in school between the ages of fourteen and sixteen if the school afforded a training that promised increased earning capacity. It is fair to conclude, therefore, that the present condition of many young workers, typified by our elevator boy, is preventable.

Moreover, it is clear that the most valuable resources which any state has are its young men (and young women). It is clear that the greatest waste is the waste of these resources. The failure to develop them to their fullest capacity is an irredeemable failure. Boys are not wanted in the industries until they are sixteen years of age, and in some industries they are not wanted until they are past seventeen. If, therefore, between the ages of fourteen and seventeen these boys are allowed to drift, if they go about from one occupation to another in which they do not develop such capacity for mechanical pursuits as they have, or if they remain in school and the academic traditions prevalent there turn them away from the trades, as is not uncommon, they too commonly go to swell the ranks of the unskilled; and as they grow older, of the dissatisfied, the stranded, and the dependent.

Although boys are not wanted in the industries until they are sixteen years of age, the years from fourteen to sixteen are, nevertheless, exceedingly valuable years for education—an education that teaches them the significance of a skilled vocation, and that helps them to explore their capacities and their tastes for the vocations in which skilled labor is needed. These years are, therefore, extremely valuable for purposes of industrial education. What the nature of that education might be I shall describe later on. I shall first sketch the difficulty which

boys now find in learning a trade without special preparation for it.

Under the specialized condition of modern industry it is usually exceedingly difficult for a man to learn his trade in the shop, and sometimes impossible. The old apprenticeship system, which enabled a man to learn the whole of a trade, is dead. It is well known that today the man in the shop works at a part of the product with a given machine, and knows little of what is done toward the completion of that product by other men and other machines. He is a narrow specialist, working day by day at the same kind of work under precisely the same conditions, the machine requiring but little exercise of thought or ingenuity. Usually he knows little or nothing about the machine itself. The shop has machinists who repair the machines. Under such circumstances a man loses the habit of thinking, since no demand is made on him for thought. It is true that all men have not "all the conveniences for thinking," even if they were called upon to think, but under the exigencies of the modern shop the habit of thinking is rarely developed. This specialization in modern industry is, however, highly profitable to the manufacturer. It is one of the reasons why goods can be produced so quickly and so cheaply. It is, therefore, like other modern developments, a condition which will survive.

In a shop if a man wishes to learn his trade, he has, as I said a moment ago, great difficulty in attaining his end. What happens is usually something like this. A youth applies for work in a shop. He is put, let us say, on a milling machine. He learns in the course of a few weeks to run that machine. Meanwhile, of course, he spoils more or less material. The machine is subject to his ignorant handling and necessarily gets more or less out of repair; the product which he turns out is more or less imperfect in quality; and the total result is, temporarily at least, a loss to the manufacturer.

If the youth is ambitious, he naturally desires to learn to run the other machines of the shop; but when he asks the foreman to be transferred to another machine, he will

be told, "You are doing well enough where you are." The reason, of course, is plain. Every time he is transferred to a new machine the process previously described is repeated. If there are one hundred or five hundred raw men in a shop, the loss to the manufacturer is considerable. The shop exists for turning out products, and not for teaching men how to turn out products. In the shop, therefore, no one has the time and very often no one has the inclination, to help a man to learn his trade. That isn't what the shop is for.

What happens, then, to our ambitious young man who persists in his intention to learn his trade? He quits, and applies for work at another shop, asking for work at another machine, saying that he is, let us say, a lathe hand. Meanwhile, he has naturally become somewhat familiar with a lathe and knows something about the working of it. Shortly after he begins his work as a lathe hand, the foreman comes around to see how he is getting along, looks at the work, and says, "You can't do this work; you can go." Naturally the man has to go to another shop and there the process is repeated with the possibility, however, of a longer stay. This procedure an ambitious man will continue until he has made himself, by repeated changes and brief periods of practice, a lathe hand and can do satisfactory work. I have heard of one man who repeated this process nineteen times in his endeavor to learn his trade. It won't do to talk to such a man about the dignity of labor. By such a procedure a man may require six or seven years to learn his trade; and even then he commonly learns only the processes of the trade and not the theoretical foundations of it. The mathematics, drawing, science, and the rest, applicable to his particular trade, are inaccessible to him. He has little opportunity to develop "industrial intelligence" and the "shop and business ethics" that grow out of insight into and consequent interest in his work, and the sense of responsibility born of conscious resources as a workman and a man. Consequently, although he is better equipped for steady work and for possible promotion to a foremanship than the ordinary specialist, his further progress is

obstructed, if not prevented, just at the point where he could become most valuable to himself and to his employer.

It must be remembered that the great mass of young workmen are not ambitious and persistent enough to follow so difficult a road in learning their trades. The result is that most of them fall by the way; they become narrow workmen who can handle a single machine only, and whose prospects of an upward career in their trades are consequently very meagre.

Now let us follow the body of ambitious workmen whom I have described as persisting against tremendous odds in learning their trades so that they can be useful in any part of the shop, and, if possible, rise to the grade of foreman. Such men constitute an army of workers who are going from one factory to another, "stealing their trades," as the phrase is. These men spend too many of the most valuable years of their lives in overcoming obstacles to a career of usefulness—years that should represent steady progress in that career. Moreover, they cannot become attached to a locality, and the steadying and inspiring sense of usefulness to a single employer or manufacturing concern cannot be realized.

Many manufacturers have encouraged their employes to seek instruction by correspondence, and the extent to which our artisans avail themselves of such instruction is remarkable. For example, out of seventeen hundred employes in a well-known establishment, three hundred were, last year, enrolled in correspondence courses. This is decidedly creditable to American workmen, and it is not discreditable to the correspondence schools. But the disadvantages of instruction by correspondence only are great and obvious. Moreover, since a considerable number of those who enroll in correspondence courses do not, for various reasons, continue them, a considerable part of the money paid for such courses is wasted. They do, however, afford the sole available means to many persistent and ambitious men, to secure the theoretical instruction on which their upward career depends. Besides the correspondence schools, the Y. M. C. A. and other philanthropies offer some opportunities for industrial education to men

already employed in the trades. Public schools for trade instruction, aside from the public evening drawing schools, are very rare.

It may seem odd that under such circumstances the manufacturers themselves have not more frequently established schools in connection with their establishments for the training of apprentices. But it is clear that such schools are expensive, if they are in the interests of the workmen as well as of the employer. And hence only the largest manufacturers can undertake such apprentice schools anyway. There are a few such schools; but generally the manufacturer prefers to employ the man who already knows one machine. He gets his foremen from other shops, or from Europe; or he may try to train the foremen he needs in his own shop, usually with many disappointing experiences.

Nothing is clearer, however, than that the means hitherto employed are inadequate to meet the demand for skilled labor. Manufacturers in all parts of the country declare that if they could find the skilled help which they need, they could double their plants and hence largely increase or double their output, and that they never have as many foremen as they need. On every hand the need of skilled labor is deplored, and yet we have done and are doing comparatively little to meet this need.

There is a specious American complacency which stands in the way of the proper development of our industry and commerce. This was clearly exemplified at the exposition in St. Louis. It is well known that the Germans who visited that exposition went away much impressed by the magnitude of American industrial and commercial enterprises, and the enormous wealth which resulted therefrom. But they told their fellows on their return to the Fatherland that they had nothing to fear from the American people so long as our complacency prevented us from seeing that it was only the abundance of raw material and the extraordinary ingenuity displayed in our industrial and commercial combinations which led to our success. As a nation we had yet scarcely begun to realize the importance of quality in our output, and of the trained workman

in making the most of our resources; and until we did, it was not likely that a nation like Germany which emphasizes such training and the quality of its output had anything to fear from the competition of the United States.¹

Such comments, by thoughtful observers, contain a lesson that Americans should heed. Not long ago Mr. Vanderlip of New York expressed himself, in substance, as follows: The remarkable prosperity of the United States is due chiefly to three causes: the great abundance of our raw materials, our ingenuity in the invention of machinery, and our genius for commercial combinations. Not one of these three causes, however, can be looked upon as a permanent cause of success. Great inroads are being made on our raw materials, and some of them are even now fairly well used up. Labor saving machinery and cheap production cannot be a monopoly of the United States, for this machinery is obtainable the world over. American commercial combinations are being imitated everywhere. It has never yet been shown that the cause of American success in foreign markets was due to the quality of the goods produced. In that respect we have not yet made much progress, and until we do we are, of course, at the mercy of those who are able to use all the resources which we possess and, in addition, to use them to better advantage.² So far Mr. Vanderlip.

Germany is the classical example of a nation that has not neglected the development of all its resources, men included. For example, in one city—Munich—there are forty different kinds of industrial continuation schools—schools for chimney sweeps, coachmen, hotel and restaurant waiters, jewelers, shoemakers, carpenters, machinists, blacksmiths, tinsmiths, printers and bookbinders, and the rest. The name continuation school—*Fortbildungsschule*—is chosen advisedly, for every youth who graduates only from an elementary school is obliged by law to continue his education in some continuation school during the period

1 Monthly Consular Reports of the United States, January, 1905, page 229. Referred to by Professor Harlow Stafford Person in his *Industrial Education*, Houghton, Mifflin & Co., 1907.

2 "American Industrial Training as Compared with European Industrial Training." In the *Social Education Quarterly* (Boston), June, 1907.

of his apprenticeship to his trade; and each youth finds a continuation school appropriate to his calling. Employers are by law required to give their employes the time to attend these schools—from six to twelve hours a week, depending on the trade, for from three to five years. These continuation schools are not evening schools; because it is well known that boys fourteen to fifteen years of age, after a hard day's work in a shop or factory or on a building are unable to profit by evening instruction to the extent to which they could profit by the same instruction if it were given in the daytime. Moreover, it is clear that forced school work at the end of an arduous day is unhygienic.

In these continuation schools one of the most suggestive arrangements is the close correlation of the theoretical foundations of each trade with the instruction in the processes of the trade. That is to say, the mathematics of the school is the mathematics of the shop, whether it is jewelry or shoemaking or carpentry. The same is true of the machinist's mathematics. Similarly the drawing of the school is the drawing of the shop. The problems which the boy finds in the shop today are dwelt upon at length in the school tomorrow. In the same way the closest possible relation of the sciences, physical or biological, to the trade concerned are maintained. The youth learns also the history of his trade, and civics, and the proper use of his mother tongue in relation to his trade.

From the continuation school the youth at eighteen or nineteen enters the army, where for at least two years more he is under systematic educational influence. That is to say, the German nation has been unwilling for more than a generation, that a youth after he leaves the elementary school should be without systematic educational influence until he reaches the age of citizenship; while, in this country, we are just beginning to realize our responsibilities in this respect.

The effect of the extraordinary scheme of technical education of all grades, not only the elementary technical education which has just been sketched, but of all higher grades of technical education, on the progress of German industry and commerce is well known. Before the Franco-

Prussian war Germany was, industrially and commercially, rather an unimportant nation. Immediately after the Franco-Prussian war, after German unity had been accomplished, the nation devoted itself to the development of its educational system and to the development of industry and commerce; and it has become, as is also well known, one of the most important manufacturing and commercial nations of the world—a tremendous rival in that respect of other progressive nations. While Germany's educational system is not the sole cause of this extraordinary prosperity, it is, nevertheless, one of the most important causes, and by the Germans themselves is regarded as *the* most important.

Now while it would be undesirable and impossible to transplant any German institution to this country just as it exists in Germany, it is, nevertheless, clear that this particular German institution offers most valuable suggestions for America. We flatter ourselves that in our democratic society we provide equal opportunities for all through education. That is to say, we claim to provide educational opportunities that will enable a man to make the most of his capacity, his industry, and his character, whatever his original station in life may be. And yet we have failed to provide such an opportunity for that great mass of our population who must face the most serious problem of life—self-support and the means of progressive well-being—at an early age.

Thus far, I have endeavored to show that there is a great need of industrial education. The manufacturer needs skilled labor. The workman needs an opportunity to develop "industrial intelligence" and skill, and a sense of responsibility. I have also endeavored to show that while we have developed with much industry and enterprise the material resources which we possess, we have done little, if anything, to promote the development of the most important resource we have, namely, the great majority of our wage-earning men (and women). I have endeavored to show also that, while the effect of this neglect is to deprive the employer of the industrial intelligence and skill that he needs, it also deprives the

wage-earner of the greatest blessing which any man on earth can have—the prospect of a steady job, and an increasing wage based on progressive efficiency and responsibility. And, therefore, that there is here an educational need for which we have not yet provided an educational institution. This institution is the school of mechanical industries.¹ And it remains to sketch in briefest outline the nature of this school. Such a sketch is suggested only as a basis for intelligent experimenting. It is thought to be definite enough, however, to serve as a possible guide in planning industrial schools, and flexible enough to permit adaptation to local conditions and local needs.

Each school should receive boys (and girls) fourteen years of age and upwards who express their intention to learn a trade. When these schools are fully established, they would require four years of day instruction. The first two years would include much shop instruction, greater in amount and much closer to the trades than the shop instruction of most of the manual training schools now in existence; together with related mathematics, natural science, drawing, the history of industry and commerce, civics treated as concretely as possible, and shop and business English. These two years would serve first of all to direct the attention of boys and girls to a trade, would develop in them the vocational purpose, would explore their several capacities; and should enable them, with the help of their teachers, to select that trade for which they are best fitted by natural taste and capacity.

The last two years would include specialized instruction in the trades appropriate to a given locality, and the theoretical foundations of each trade—drawing, mathematics, natural science, and also the history of that trade, shop and business English, and civics, as before. These last two years could be completed in that time by pupils who are able to attend the school continuously, or in a longer time by pupils who are obliged to work a part of

¹ Cf. the Report of the Massachusetts Commission on Industrial Education, March, 1907. Public Document No. 76.

the time; or the work could be done by such pupils in the evening. Some manufacturers believe that some kind of part-time scheme—that is, part of the time in school and part of the time in the factory—is possible for some industries; whereas for other industries the further education of the pupil would have to be undertaken in the evening. Evening instruction for persons already employed in the trades would, of course, be an important part of every school.

In every community that has a manual training school the plan just outlined for the industrial school could be easily carried out. At this point a brief digression seems desirable. It seems worth while to indicate in a few sentences the difference between manual training and industrial training. Manual training is a means of general education just as history or chemistry or language is a means of general education. It has materials of its own and a method of its own, and hence the result is a peculiar kind of knowledge and power due to the nature of the subject and the method that it demands. That is to say, each subject of instruction is a means of general education because it supplies a peculiar kind of knowledge and develops a peculiar kind of power. Each of these subjects, therefore, possesses an educational value not shared by other studies. The peculiar educational value of manual training is that it gives a knowledge of our constructive activities and a sympathetic appreciation of them which cannot be gained in any other way, and an incipient power to be useful in them, which similarly cannot be gained in any other way. It is, however, as now carried on, usually much too general to be comparable to industrial training. Manual training abstracts the principles of all trades and teaches them. It ought to make a pupil generally "handy." It is, if properly carried on, an excellent preparation for industrial training. Industrial training goes farther. Besides teaching all the processes of a given trade from the first attack on the raw material to the last touches on the finished product, it teaches the theoretical foundations of that trade. Hence it gives the worker a *technical* knowledge

of his trade, and begins the development of skill in the practice of it. It must not be inferred, however, from what has just been said that an industrial school can turn out a journeyman. The skill of the journeyman can be developed fully only in the factory.

Such schools as have been sketched should be independent schools parallel to the existing high schools. They should be independent schools, because the motive which dominates them determines the value of their work in every detail. It is clear from what has gone before that the theoretical instruction of the general high school is not adapted to specific instruction in a trade. In a general high school no specific application of the instruction is aimed at. In the industrial school everything has its specific application. Therein lies its value and its significance. While in training for a trade, or in the pursuit of that trade itself, there is constant opportunity for the application of all that the pupil has learned, and hence the possibility of progressive growth in thinking about his calling and in his command over it, not only in the processes of the trade, but in all that the trade means.

Under such circumstances the workman knows not merely the processes of his trade; he knows all of them as he cannot learn them in the factory, but he knows the principles of his trade as well. And he should be able to form a just estimate of his own value to himself and to the community.

Paul H. Hanus, in *The Atlantic Monthly*.

THE EDUCATIONAL VALUE OF NATURAL HISTORY SCIENCES

The subject to which I have to beg your attention during the ensuing hour is "The Relation of Physiological Science to other branches of knowledge."

Had circumstances permitted of the delivery, in their strict logical order, of that series of discourses of which the present lecture is a member, I should have preceded

my friend and colleague Mr. Henfrey, who addressed you on Monday last; but while, for the sake of that order, I must beg you to suppose that this discussion of the educational bearings of biology in general *does* precede that of special zoölogy and botany, I am rejoiced to be able to take advantage of the light thus already thrown upon the tendency and methods of physiological science.

Regarding physiological science then, in its widest sense—as the equivalent of *Biology*—the science of individual life—we have to consider, in succession:

1. Its position and scope as a branch of knowledge. 
2. Its value as a means of mental discipline.
3. Its worth as practical information.

And lastly,

4. At what period it may best be made a branch of education.

Our conclusions on the first of these heads must depend, of course, upon the nature of the subject-matter of biology; and I think a few preliminary considerations will place before you in a clear light the vast difference which exists between the living bodies with which physiological science is concerned, and the remainder of the universe;—between the phenomena of number and space, of physical and of chemical force, on the one hand, and those of life on the other.

The mathematician, the physicist, and the chemist contemplate things in a condition of rest; they look upon a state of equilibrium as that to which all bodies normally tend.

The mathematician does not suppose that a quantity will alter, or that a given point in space will change its direction with regard to another point, spontaneously. And it is the same with the physicist. When Newton saw the apple fall, he concluded at once that the act of falling was not the result of any power inherent in the apple, but that it was the result of the action of something else on the apple. In a similar manner, all physical force is regarded as the disturbance of an equilibrium to which things tended before its exertion,—to which they will tend again after its cessation.

The chemist equally regards chemical change in a body, as the effect of the action of something external to the body changed. A chemical compound once formed would persist forever, if no alteration took place in surrounding conditions.

But to the student of life the aspect of nature is reversed. Here, incessant, and, so far as we know, spontaneous change is the rule, rest the exception—the anomaly to be accounted for. Living things have no inertia and tend to no equilibrium.

Permit me, however, to give more force and clearness to these somewhat abstract considerations, by an illustration or two.

Imagine a vessel full of water, at the ordinary temperature, in an atmosphere saturated with vapor. The *quantity* and the *figure* of that water will not change, so far as we know, for ever.

Suppose a lump of gold be thrown into the vessel—motion and disturbance of figure exactly proportional to the momentum of the gold will take place. But after a time the effects of this disturbance will subside—equilibrium will be restored, and the water will return to its passive state.

Expose the water to cold—it will solidify—and in so doing its particles will arrange themselves in definite crystalline shapes. But once formed, these crystals change no further.

Again, substitute for the lump of gold some substance capable of entering into chemical relations with the water:—say, a mass of that substance which is called “protein”—the substance of flesh:—a very considerable disturbance of equilibrium will take place—all sorts of chemical compositions and decompositions will occur; but in the end, as before, the result will be the resumption of a condition of rest.

Instead of such a mass of *dead* protein, however, take a particle of *living* protein—one of those minute microscopic living things which throng our pools, and are known as Infusoria—such a creature, for instance, as an Euglena, and place it in our vessel of water. It is a round

mass provided with a long filament, and except in this peculiarity of shape, presents no appreciable physical or chemical difference whereby it might be distinguished from the particle of dead protein.

But the difference in the phenomena to which it will give rise is immense: in the first place it will develop a vast quantity of physical force—cleaving the water in all directions, with considerable rapidity, by means of the vibrations of the long filament or cilium.

Nor is the amount of chemical energy which the little creature possesses less striking. It is a perfect laboratory in itself, and it will act and react upon the water and the matters contained therein; converting them into new compounds resembling its own substance and, at the same time, giving up portions of its own substance which have become effete.

Furthermore, the *Euglena* will increase in size; but this increase is by no means unlimited, as the increase of a crystal might be. After it has grown to a certain extent it divides, and each portion assumes the form of the original and proceeds to repeat the process of growth and division.

Nor is this all. For after a series of such divisions and subdivisions, these minute points assume a totally new form, lose their long tails—round themselves, and secrete a sort of envelope or box, in which they remain shut up for a time, eventually to resume, directly or indirectly, their primitive mode of existence.

Now, so far as we know, there is no natural limit to the existence of the *Euglena*, or of any other living germ. A living species once launched into existence tends to live for ever.

Consider how widely different this living particle is from the dead atoms with which the physicist and chemist have to do!

The particle of gold falls to the bottom and rests—the particle of dead protein decomposes and disappears—it also rests: but the *living* protein mass neither tends to exhaustion of its forces nor to any permanency of form, but is essentially distinguished as a disturber of equilib-

rium so far as force is concerned,—as undergoing continual metamorphosis and change, in point of form.

Tendency to equilibrium of force, and to permanency of form then, are the characters of that portion of the universe which does not live—the domain of the chemist and physicist.

Tendency to disturb existing equilibrium,—to take on forms which succeed one another in definite cycles, is the character of the living world.

What is the cause of this wonderful difference between the dead particle and the living particle of matter appearing in other respects identical? that difference to which we give the name of Life?

I, for one, cannot tell you. It may be that, by and bye, philosophers will discover some higher laws of which the facts of life are particular cases—very possibly they will find out some bond between physico-chemical phenomena on the one hand, and vital phenomena on the other. At present, however, we assuredly know of none; and I think we shall exercise a wise humility in confessing that, for us at least, this successive assumption of different states—(external conditions remaining the same)—this *spontaneity of action*—if I may use a term which implies more than I would be answerable for—which constitutes so vast and plain a practical distinction between living bodies and those which do not live, is an ultimate fact; indicating as such, the existence of a broad line of demarcation between the subject-matter of biological and that of all other sciences.

For I would have it understood that this simple *Euglena* is the type of *all* living things, so far as the distinction between these and inert matter is concerned. That cycle of changes, which is constituted by perhaps not more than two or three steps in the *Euglena*, is as clearly manifested in the multitudinous stages through which the germ of an oak or of a man passes. Whatever forms the living being may take on, whether simple or complex,—*production, growth, reproduction*,—are the phenomena which distinguish it from that which does not live.

If this be true, it is clear that the student, in passing

from the physico-chemical to the physiological sciences, enters upon a totally new order of facts; and it will next be for us to consider how far these new facts involve *new* methods, or require a modification of those with which he is already acquainted. Now a great deal is said about the peculiarity of the scientific method in general, and of the different methods which are pursued in the different sciences. The mathematics are said to have one special method; physics another, biology a third, and so forth. For my own part, I must confess that I do not understand this phraseology. So far as I can arrive at any clear comprehension of the matter, science is not, as many would seem to suppose, a modification of the black art, suited to the tastes of the nineteenth century, and flourishing mainly in consequence of the decay of the Inquisition.

Science is, I believe, nothing but *trained and organized common sense*, differing from the latter only as a veteran may differ from a raw recruit: and its methods differ from those of common sense only so far as the guardsman's cut and thrust differ from the manner in which a savage wields his club. The primary power is the same in each case, and perhaps the untutored savage has the more brawny arm of the two. The *real* advantage lies in the point and polish of the swordsman's weapon; in the trained eye quick to spy out the weakness of the adversary; in the ready hand prompt to follow it on the instant. But after all, the sword exercise is only the hewing and poking of the clubman developed and perfected.

So, the vast results obtained by Science are won by no mystical faculties, by no mental processes, other than those which are practised by every one of us, in the humblest and meanest affairs of life. A detective policeman discovers a burglar from the marks made by his shoe, by a mental process identical with that by which Cuvier restored the extinct animals of Montmartre from fragments of their bones. Nor does that process of induction and deduction by which a lady, finding a stain of a peculiar kind upon her dress, concludes that somebody has upset the inkstand thereon, differ in any way, in

kind, from that by which Adams and Leverrier discovered a new planet.

The man of science, in fact, simply uses with scrupulous exactness, the methods which we all, habitually and at every moment, use carelessly; and the man of business must as much avail himself of the scientific method—must be as truly a man of science—as the veriest book-worm of us all; though I have no doubt that the man of business will find himself out to be a philosopher with as much surprise as M. Jourdain exhibited when he discovered that he had been all his life talking prose. If, however, there be no real difference between the methods of science and those of common life, it would seem on the face of the matter highly improbable that there should be any difference between the methods of the different sciences; nevertheless, it is constantly taken for granted that there is a very wide difference between the physiological and other sciences in point of method.

In the first place it is said—and I take this point first, because the imputation is too frequently admitted by physiologists themselves—that biology differs from the physico-chemical and mathematical sciences, in being “inexact.”

Now, this phrase “inexact” must refer either to the *methods* or to the *results* of physiological science.

It cannot be correct to apply it to the methods; for, as I hope to show you by and bye, these are identical in all sciences, and whatever is true of physiological method is true of physical and mathematical method.

Is it then the *results* of biological science which are “inexact”? I think not. If I say that respiration is performed by the lungs; that digestion is effected in the stomach; that the eye is the organ of sight; that the jaws of a vertebrated animal never open sideways, but always up and down; while those of an annulose animal always open sideways, and never up and down—I am enumerating propositions which are as exact as anything in Euclid. How then has this notion of the inexactness of biological science come about? I believe from two causes: first, because, in consequence of the great complexity of the

science and the multitude of interfering conditions, we are very often only enabled to predict approximately what will occur under given circumstances; and secondly, because, on account of the comparative youth of the physiological sciences, a great many of their laws are still imperfectly worked out. But in an educational point of view, it is most important to distinguish between the essence of a science and the accidents which surround it; and essentially, the methods and results of physiology are as exact as those of physics or mathematics.

It is said that the physiological method is especially *comparative*; and this dictum also finds favor in the eyes of many. I should be sorry to suggest that the speculators on scientific classification have been misled by the accident of the name of one leading branch of biology—*Comparative Anatomy*; but I would ask whether *comparison*, and that classification which is the result of comparison, are not the essence of every science whatsoever? How is it possible to discover a relation of cause and effect of *any* kind without comparing a series of cases together in which the supposed cause and effect occur singly, or combined? So far from comparison being in any way peculiar to biological science, it is, I think, the essence of every science.

A speculative philosopher again tells us that the biological sciences are distinguished by being sciences of observation and not of experiment! 

Of all the strange assertions into which speculation without practical acquaintance with a subject may lead even an able man, I think this is the very strangest. Physiology not an experimental science! Why, there is not a function of a single organ in the body which has not been determined wholly and solely by experiment? How did Harvey determine the nature of the circulation, except by experiment? How did Sir Charles Bell determine the functions of the roots of the spinal nerves, save by experiment? How do we know the use of a nerve at all, except by experiment? Nay, how do you know even that your eye is your seeing apparatus, unless you make the experiment of shutting it; or that your ear is your

hearing apparatus, unless you close it up and thereby discover that you become deaf?

It would really be much more true to say that physiology is *the* experimental science *par excellence* of all sciences; that in which there is least to be learnt by mere observation, and that which affords the greatest field for the exercise of those faculties which characterize the experimental philosopher. I confess, if any one were to ask me for a model application of the logic of experiment, I should know no better work to put into his hands than Bernard's late *Researches on the Functions of the Liver*.

Not to give this lecture a too controversial tone, however, I must only advert to one more doctrine, held by a thinker of our own age and country, whose opinions are worthy of all respect. It is, that the biological sciences differ from all others, inasmuch as in *them*, classification takes place by type and not by definition.

It is said, in short, that a natural-history class is not capable of being defined—that the class *Rosaceæ*, for instance, or the class of fishes, is not accurately and absolutely definable, inasmuch as its members will present exceptions to every possible definition; and that the members of the class are united together only by the circumstance that they are all more like some imaginary average rose or average fish, than they resemble anything else.

But here, as before, I think the distinction has arisen entirely from confusing a transitory imperfection with an essential character. So long as our information concerning them is imperfect, we class all objects together according to resemblances which we *feel*, but cannot *define*; we group them round *types*, in short. Thus, if you ask an ordinary person what kinds of animals there are, he will probably say, beasts, birds, reptiles, fishes, insects, &c. Ask him to define a beast from a reptile, and he cannot do it; but he says, things like a cow or a horse are beasts, and things like a frog or a lizard are reptiles. You see *he does* class by type and not by definition. But how does this classification differ from that of the scientific zoölo-

gist? How does the meaning of the scientific class-name of "Mammalia" differ from the unscientific of "Beasts"?

Why, exactly because the former depends on a definition, the latter on a type. The class Mammalia is scientifically defined as "all animals which have a vertebrated skeleton and suckle their young." Here is no reference to type, but a definition rigorous enough for a geometriician. And such is the character which every scientific naturalist recognizes as that to which his classes must aspire—knowing, as he does, that classification by type is simply an acknowledgment of ignorance and a temporary device.

So much in the way of negative argument as against the reputed differences between biological and other methods. No such differences, I believe, really exist. The subject-matter of biological science is different from that of other sciences, but the methods of all are identical; and these methods are—

1. *Observation* of facts—including under this head that *artificial observation* which is called *experiment*.

2. That process of tying up similar facts into bundles, ticketed and ready for use, which is called *Comparison* and *Classification*,—the results of the process, the ticketed bundles, being named *General propositions*.

3. *Deduction*, which takes us from the general proposition to facts again—teaches us, if I may so say, to anticipate from the ticket what is inside the bundle. And finally—

4. *Verification*, which is the process of ascertaining whether, in point of fact, our anticipation is a correct one.

Such are the methods of all science whatsoever; but perhaps you will permit me to give you an illustration of their employment in the science of life; and I will take as a special case, the establishment of the doctrine of the *Circulation of the Blood*.

In this case, *simple observation* yields us a knowledge of the existence of the blood from some accidental hemorrhage, we will say: we may even grant that it informs us of the localization of this blood in particular vessels,

the heart, &c., from some accidental cut or the like. It teaches also the existence of a pulse in various parts of the body, and acquaints us with the structure of the heart and vessels.

Here, however, *simple observation* stops, and we must have recourse to *experiment*.

You tie a vein, and you find that the blood accumulates on the side of the ligature opposite the heart. You tie an artery, and you find that the blood accumulates on the side near the heart. Open the chest, and you see the heart contracting with great force. Make openings into its principal cavities, and you will find that all the blood flows out, and no more pressure is exerted on either side of the arterial or venous ligature.

Now all these facts, taken together, constitute the evidence that the blood is propelled by the heart through the arteries, and returns by the veins—that, in short, the blood circulates.

Suppose our experiments and observations have been made on horses, then we group and ticket them into a general proposition, thus:—*all horses have a circulation of their blood*.

Henceforth a horse is a sort of indication or label, telling us where we shall find a peculiar series of phenomena called the circulation of the blood.

Here is our *general proposition* then.

How and when are we justified in making our next step—a *deduction* from it?

Suppose our physiologist, whose experience is limited to horses, meets with a zebra for the first time,—will he suppose that his generalization holds good for zebras also?

That depends very much on his turn of mind. But we will suppose him to be a bold man. He will say, “The zebra is certainly not a horse, but it is very like one,—so like, that it must be the ‘ticket’ or mark of a blood-circulation also; and, I conclude that the zebra has a circulation.”

That is a deduction, a very fair deduction, but by no means to be considered scientifically secure. This last

quality in fact can only be given by *verification*—that is, by making a zebra the subject of all the experiments performed on the horse. Of course in the present case the *deduction* would be *confirmed* by this process of verification, and the result would be, not merely a positive widening of knowledge, but a fair increase of confidence in the truth of one's generalizations in other cases.

Thus, having settled the point in the zebra and horse, our philosopher would have great confidence in the existence of a circulation in the ass. Nay, I fancy most persons would excuse him, if in this case he did not take the trouble to go through the process of verification at all; and it would not be without a parallel in the history of the human mind, if our imaginary physiologist now maintained that he was acquainted with asinine circulation *a priori*.

However, if I might impress any caution upon your minds, it is the utterly conditional nature of all our knowledge,—the danger of neglecting the process of verification under any circumstances; and the film upon which we rest, the moment our deductions carry us beyond the reach of this great process of verification. There is no better instance of this than is afforded by the history of our knowledge of the circulation of the blood in the animal kingdom until the year 1824. In every animal possessing a circulation at all, which had been observed up to that time, the current of the blood was known to take one definite and invariable direction. Now, there is a class of animals called *Ascidians* which possess a heart and a circulation, and up to the period of which I speak, no one would have dreamt of questioning the propriety of the deduction, that these creatures have a circulation in one direction; nor would any one have thought it worth while to verify the point. But, in that year, M. von Hasselt happening to examine a transparent animal of this class, found to his infinite surprise, that after the heart had beat a certain number of times, it stopped, and then began beating the opposite way—so as to reverse the course of the current, which returned by and bye to its original direction.

I have myself timed the heart of these little animals. I found it as regular as possible in its periods of reversal: and I know no spectacle in the animal kingdom more wonderful than that which it presents—all the more wonderful that to this day it remains an unique fact, peculiar to this class among the whole animated world. At the same time I know of no more striking case of the necessity of the *verification* of even those deductions which seem founded on the widest and safest inductions.

Such are the methods of biology—methods which are obviously identical with those of all other sciences, and therefore wholly incompetent to form the ground of any distinction between it and them.

But I shall be asked at once, do you mean to say that there is no difference between the habit of mind of a mathematician and that of a naturalist? Do you imagine that Laplace might have been put into the Jardin des Plantes, and Cuvier into the Observatory, with equal advantage to the progress of the sciences they professed?

To which I would reply, that nothing could be further from my thoughts. But different habits and various special tendencies of two sciences do not imply different methods. The mountaineer and the man of the plains have very different habits of progression, and each would be at a loss in the other's place; but the method of progression, by putting one leg before the other, is the same in each case. Every step of each is a combination of a lift and a push; but the mountaineer lifts more and the lowlander pushes more. And I think the case of two sciences resembles this.

I do not question for a moment, that while the mathematician is busy with deductions *from* general propositions, the biologist is more especially occupied with observation, comparison, and those processes which lead *to* general propositions. All I wish to insist upon is, that this difference depends not on any fundamental distinction in the sciences themselves, but on the accidents of their subject-matter, of their relative complexity, and consequent relative perfection.

The mathematician deals with two properties of objects

only, number and extension, and all the inductions he wants have been formed and finished ages ago. He is occupied now with nothing but deduction and verification.

The biologist deals with a vast number of properties of objects, and his inductions will not be completed, I fear, for ages to come; but when they are, his science will be as deductive and as exact as the mathematics themselves.

Such is the relation of biology to those sciences which deal with objects having fewer properties than itself. But as the student in reaching biology looks back upon sciences of a less complex and therefore more perfect nature, so on the other hand does he look forward to other more complex and less perfect branches of knowledge. Biology deals only with living beings as isolated things—treats only of the life of the individual: but there is a higher division of science still, which considers living beings as aggregates—which deals with the relation of living beings one to another—the science which *observes* men—whose *experiments* are made by nations one upon another, in battle-fields—whose *general propositions* are embodied in history, morality, and religion—whose *deductions* lead to our happiness or our misery,— and whose *verifications* so often come too late, and serve only

To point a moral or adorn a tale—

I mean the science of Society or *Sociology*.

I think it is one of the grandest features of biology, that it occupies this central position in human knowledge. There is no side of the human mind which physiological study leaves uncultivated. Connected by innumerable ties with abstract science, physiology is yet in the most intimate relation with humanity; and by teaching us that law and order, and a definite scheme of development, regulate even the strangest and wildest manifestations of individual life, she prepares the student to look for a goal even amidst the erratic wanderings of mankind, and to believe that history offers something more than an entertaining chaos—a journal of a toilsome tragi-comic march nowhither.

The preceding considerations have, I hope, served to

indicate the replies which befit the two first of the questions which I set before you at starting, viz., what is the range and position of physiological science as a branch of knowledge, and what is its value as a means of mental discipline?

Its *subject-matter* is a large moiety of the universe—its *position* is midway between the physico-chemical and the social sciences. Its *value* as a branch of discipline is partly that which it has in common with all sciences—the training and strengthening of common sense; partly that which is more peculiar to itself—the great exercise which it affords to the faculties of observation and comparison; and I may add, the *exactness* of knowledge which it requires on the part of those among its votaries who desire to extend its boundaries.

If what has been said as to the position and scope of biology be correct, our third question—what is the practical value of physiological instruction?—might, one would think, be left to answer itself.

On other grounds even, were mankind deserving of the title “rational,” which they arrogate to themselves, there can be no question that they would consider as the most necessary of all branches of instruction for themselves and for their children—that which professes to acquaint them with the conditions of the existence they prize so highly—which teaches them how to avoid disease and to cherish health, in themselves and those who are dear to them.

I am addressing, I imagine, an audience of educated persons; and yet I dare venture to assert, that with the exception of those of my hearers who may chance to have received a medical education, there is not one who could tell me what is the meaning and use of an act which he performs a score of times every minute, and whose suspension would involve his immediate death;—I mean the act of breathing—or who could state in precise terms why it is that a confined atmosphere is injurious to health.

The *practical value* of physiological knowledge! Why is it that educated men can be found to maintain that a slaughter-house in the midst of a great city is rather a good thing than otherwise?—that mothers persist in

exposing the largest possible amount of surface of their children to the cold, by the absurd style of dress they adopt, and then marvel at the peculiar dispensation of Providence, which removes their infants by bronchitis and gastric fever? Why is it that quackery rides rampant over the land; and that not long ago, one of the largest public rooms in this great city could be filled by an audience gravely listening to the reverend expositor of the doctrine—that the simple physiological phenomena known as spirit-rapping, table-turning, phreno-magnetism, and by I know not what other absurd and inappropriate names, are due to the direct and personal agency of Satan?

Why is all this, except from the utter ignorance as to the simplest laws of their own animal life, which prevails among even the most highly educated persons in this country?

But there are other branches of biological science, besides physiology proper, whose practical influence, though less obvious, is not, as I believe, less certain. I have heard educated men speak with an ill-disguised contempt of the studies of the naturalist, and ask, not without a shrug, "What is the use of knowing all about these miserable animals—what bearing has it on human life?"

I will endeavor to answer that question. I take it that all will admit there is definite government of this universe—that its pleasures and pains are not scattered at random, but are distributed in accordance with orderly and fixed laws, and that it is only in accordance with all we know of the rest of the world, that there should be an agreement between one portion of the sensitive creation and another in these matters.

Surely then it interests us to know the lot of other animal creatures—however far below us, they are still the sole created things which share with us the capability of pleasure and the susceptibility to pain.

I cannot but think that he who finds a certain proportion of pain and evil inseparably woven up in the life of the very worms, will bear his own share with more courage and submission; and will, at any rate, view with

suspicion those weakly amiable theories of the divine government, which would have us believe pain to be an oversight and a mistake,—to be corrected by and bye. On the other hand, the predominance of happiness among living things—their lavish beauty—the secret and wonderful harmony which pervades them all, from the highest to the lowest, are equally striking refutations of that modern Manichean doctrine, which exhibits the world as a slave-mill, worked with many tears, for mere utilitarian ends.

There is yet another way in which natural history may, I am convinced, take a profound hold upon practical life,—and that is, by its influence over our finer feelings, as the greatest of all sources of that pleasure which is derivable from beauty. I do not pretend that natural-history knowledge, as such, can increase our sense of the beautiful in natural objects. I do not suppose that the dead soul of Peter Bell, of whom the great poet of nature says,—

A primrose by the river's brim,
A yellow primrose was to him—
And it was nothing more,

would have been a whit roused from its apathy, by the information that the primrose is a Dicotyledonous Exogen, with a monopetalous corolla and central placentation. But I advocate natural-history knowledge from this point of view, because it would lead us to *seek* the beauties of natural objects, instead of trusting to chance to force them on our attention. To a person uninstructed in natural history, his country or sea-side stroll is a walk through a gallery filled with wonderful works of art, nine-tenths of which have their faces turned to the wall. Teach him something of natural history, and you place in his hands a catalogue of those which are worth turning round. Surely our innocent pleasures are not so abundant in this life, that we can afford to despise this or any other source of them. We should fear being banished for our neglect to that limbo, where the great Florentine tells us are those who during this life “wept when they might be joyful.”

But I shall be trespassing unwarrantably on your kindness, if I do not proceed at once to my last point—the time at which physiological science should first form a part of the curriculum of education.

The distinction between the teaching of the facts of a science as instruction, and the teaching it systematically as knowledge, has already been placed before you in a previous lecture: and it appears to me, that, as with other sciences, the *common facts* of biology—the uses of parts of the body—the names and habits of the living creatures which surround us—may be taught with advantage to the youngest child. Indeed, the avidity of children for this kind of knowledge, and the comparative ease with which they retain it, is something quite marvellous. I doubt whether any toy would be so acceptable to young children as a vivarium, of the same kind as, but of course on a smaller scale than, those admirable devices in the zoölogical gardens.

On the other hand, systematic teaching in biology cannot be attempted with success until the student has attained to a certain knowledge of physics and chemistry: for though the phenomena of life are dependent neither on physical nor on chemical, but on vital forces, yet they result in all sorts of physical and chemical changes, which can only be judged by their own laws.

And now to sum up in a few words the conclusions to which I hope you see reason to follow me.

Biology needs no apologist when she demands a place—and a prominent place—in any scheme of education worthy of the name. Leave out the physiological sciences from your curriculum, and you launch the student into the world, undisciplined in that science whose subject-matter would best develop his powers of observation; ignorant of facts of the deepest importance for his own and others' welfare; blind to the richest sources of beauty in God's creation; and unprovided with that belief in a living law, and an order manifesting itself in and through endless change and variety, which might serve to check and moderate that phase of despair through which, if

he take an earnest interest in social problems, he will assuredly sooner or later pass.

Finally, one word for myself. I have not hesitated to speak strongly where I have felt strongly; and I am but too conscious that the indicative and imperative moods have too often taken the place of the more becoming subjunctive and conditional. I feel, therefore, how necessary it is to beg you to forget the personality of him who has thus ventured to address you, and to consider only the truth or error in what has been said.

T. H. Huxley.

THE RIGHTS OF THE TRUSTEES OF DARTMOUTH COLLEGE

(Argument in the Case of the Trustees of Dartmouth College *vs.* Woodward, before the Supreme Court of the United States, March 10, 1818.)

[In order to understand certain parts of this argument, the student unfamiliar with the common law in the United States should know that the Revolutionary War, although it divorced the political systems of England and this country, had in general no effect upon the law. The great body of the statutes which were passed, charters which were granted and decisions which were handed down prior to the Revolution, remained in force and were accorded the same respect and given the same interpretation as though no conflict had occurred.]

The general question is, whether the acts of the 27th of June, and of the 18th and 26th of December, 1816, are valid and binding on the rights of the plaintiffs, *without their acceptance or assent.*

The charter of 1769 created and established a corporation, to consist of twelve persons, and no more; to be called the "Trustees of Dartmouth College." The preamble to the charter recites, that it is granted on the application and request of the Rev. Eleazer Wheelock: That Doctor Wheelock, about the year 1754, established a charity school, at his own expense, and on his own estate and plantation: That for several years, through the assistance of well-disposed persons in America granted at his solicitation, he had clothed, maintained, and edu-

cated a number of native Indians, and employed them afterwards as missionaries and schoolmasters among the savage tribes: That, his design promising to be useful, he had constituted the Rev. Mr. Whitaker to be his attorney, with power to solicit contributions, in England, for the further extension and carrying on of his undertaking; and that he had requested the Earl of Dartmouth, Baron Smith, Mr. Thornton, and other gentlemen, to receive such sums as might be contributed, in England, towards supporting his school, and to be trustees thereof for his charity; which these persons had agreed to do: And thereupon Doctor Wheelock had executed to them a deed of trust, in pursuance to such agreement between him and them, and, for divers good reasons, had referred it to these persons to determine the place in which the school should be finally established: And, to enable them to form a proper decision on this subject, had laid before them the several offers which had been made to him by the several governments in America, in order to induce him to settle and establish his school within the limits of such governments for their own emolument, and the increase of learning in their respective places, as well as for the furtherance of his general original design: And inasmuch as a number of the proprietors of lands in New Hampshire, animated by the example of the governor himself and others, and in consideration that, without any impediment to its original design, the school might be enlarged and improved, to promote learning among the English, and to supply ministers to the people of that province, had promised large tracts of land, provided the school should be established in that province, the persons before mentioned, having weighed the reasons in favor of the several places proposed, had given the preference to this province, and these offers: That Doctor Wheelock therefore represented the necessity of a legal incorporation, and proposed that certain gentlemen in America, whom he had already named and appointed in his will to be trustees of his charity after his decease, should compose the corporation. Upon this recital, and in consideration of the laudable original design of Doctor Wheelock, and willing that the

best means of education be established in New Hampshire, for the benefit of the province, the king granted the charter, by the advice of his provincial council.

The substance of the facts thus recited is, that Doctor Wheelock had founded a charity, on funds owned and procured by himself; that he was at that time the sole dispenser and sole administrator, as well as the legal owner, of these funds; that he had made his will, devising this property in trust, to continue the existence and uses of the school, and appointed trustees; that in this state of things, he had been invited to fix his school permanently in New Hampshire, and to extend the design of it to the education of the youth of that province; that before he removed his school, or accepted this invitation, which his friends in England had advised him to accept, he applied for a charter, to be granted, not to whomsoever the king or government of the province should please, but to such persons as he named and appointed, namely, the persons whom he had already appointed to be the future trustees of his charity by his will.

The charter, or letters patent, then proceed to create such a corporation, and to appoint twelve persons to constitute it, by the name of the "Trustees of Dartmouth College;" to have perpetual existence, as such corporation, and with power to hold and dispose of lands and goods, for the use of the college with all the ordinary powers of corporations. They are in their discretion to apply the funds and property of the college to the support of the president, tutors, ministers, and other officers of the college, and such missionaries and schoolmasters as they may see fit to employ among the Indians. There are to be twelve trustees forever, *and no more*; and they are to have the right of filling vacancies occurring in their own body. All proper powers of government, superintendence, and visitation are vested in the trustees. They are to appoint and remove all officers at their discretion; to fix their salaries, and assign their duties; and to make all ordinances, orders, and laws for the government of the students. These letters patent are to be good and effectual, in law, *against the king, his heirs and successors forever*, with-

out further grant or confirmation; and the trustees are to hold all and singular these privileges, advantages, liberties, and immunities to them and to their successors forever.

After the institution thus created and constituted had existed, uninterruptedly and usefully, nearly fifty years, the legislature of New Hampshire passed the acts in question.

The first act makes the twelve trustees under the charter, and nine other individuals, to be appointed by the governor and council, a corporation, by a new name; and to this new corporation transfers all the *property, rights, powers, liberties, and privileges* of the old corporation; with further power to establish new colleges and an institute, and to apply all or any part of the funds to these purposes; subject to the power and control of a board of twenty-five overseers, to be appointed by the governor and council.

The second act makes further provisions for executing the objects of the first, and the last act authorizes the defendant, the treasurer of the plaintiffs, to retain and hold their property, against their will.

If these acts are valid, the old corporation is abolished, and a new one created. The first act does, in fact, if it can have any effect, create a new corporation, and transfer to it all the property and franchises of the old. The two corporations are not the same, in anything which essentially belongs to the existence of a corporation. They have different names and different powers, rights, and duties. Their organization is wholly different. The powers of the corporation are not vested in the same, or similar hands. In one, the trustees are twelve, and no more. In the other, they are twenty-one. In one, the power is in a single board. In the other, it is divided between two boards. Although the act professes to include the old trustees in the new corporation, yet that was without their assent, and against their remonstrance; and no person can be compelled to be a member of such a corporation against his will. It was neither expected nor intended that they should be members of the new corporation. The act itself treats the old corporation as at an end, and going on the

ground that all its functions have ceased, it provides for the first meeting and organization of the new corporation. It expressly provides, also, that the new corporation shall have and hold all the property of the old; a provision which would be quite unnecessary upon any other ground, than that the old corporation was dissolved. But if it could be contended that the effect of these acts was not entirely to abolish the old corporation, yet it is manifest that they impair and invade the rights, property, and powers of the trustees under the charter, as a corporation, and the legal rights, privileges, and immunities which belong to them, as individual members of the corporation.

The twelve trustees were the *sole* legal owners of all the property acquired under the charter. By the acts, others are admitted, against *their* will, to be joint owners. The twelve individuals who are trustees were possessed of all the franchises and immunities conferred by the charter. By the acts, *nine* other trustees and *twenty-five* overseers are admitted, against their will, to divide these franchises and immunities with them.

If, either as a corporation or as individuals, they have any legal rights, this forcible intrusion of others violates those rights as manifestly as an entire and complete ouster and dispossession. These acts alter the whole constitution of the corporation. They affect the rights of the whole body as a corporation, and the rights of the individuals who compose it. They revoke corporate powers and franchises. They alienate and transfer the property of the college to others. By the charter, the trustees had a right to fill vacancies in their own number. This is now taken away. They were to consist of twelve, and, by express provision, of no more. This is altered. They and their successors, appointed by themselves, were forever to hold the property. The legislature has found successors for them, before their seats are vacant. The powers and privileges which the twelve were to exercise exclusively, are now to be exercised by others. By one of the acts, they are subjected to heavy penalties if they exercise their offices, or any of those powers and privileges granted them by charter, and which they had exercised for fifty years.

They are to be punished for not accepting the new grant, and taking its benefits. This, it must be confessed, is rather a summary mode of settling a question of constitutional right. Not only are new trustees forced into the corporation, but new trusts and uses are created. The college is turned into a university. Power is given to create new colleges, and, to authorize any diversion of the funds which may be agreeable to the new boards, sufficient latitude is given by the undefined power of establishing an institute. To these new colleges, and this institute, the funds contributed by the founder, Doctor Wheelock, and by the original donors, the Earl of Dartmouth and others, are to be applied, in plain and manifest disregard of the uses to which they were given.

It will be contended by the plaintiffs, that these acts are not valid and binding on them, without their assent—
 1. Because they are against common right, and the constitution of New Hampshire. 2. Because they are repugnant to the Constitution of the United States.

I am aware of the limits which bound the jurisdiction of the court in this case, and that on this record nothing can be decided but the single question, whether these acts are repugnant to the Constitution of the United States. Yet it may assist in forming an opinion of their true nature and character to compare them with those fundamental principles introduced into the state governments for the purpose of limiting the exercise of the legislative power, and which the constitution of New Hampshire expresses with great fullness and accuracy.

It is not too much to assert that the legislature of New Hampshire would not have been competent to pass the acts in question, and to make them binding on the plaintiffs without their assent, even if there had been, in the Constitution of New Hampshire or of the United States, no special restriction on their power, because these acts are not the exercise of a power properly legislative. Their object and effect are to take away, from one, rights, property, and franchises, and to grant them to another. This is not the exercise of a legislative power. To justify

the taking away of vested rights there must be a forfeiture, to adjudge upon and declare which is the proper province of the judiciary. Attainder and confiscation are acts of sovereign power, not acts of legislation.

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The legislature of New Hampshire has no more power over the rights of the plaintiffs than existed somewhere, in some department of government, before the revolution. The British Parliament could not have annulled or revoked this grant as an act of ordinary legislation. If it had done it at all, it could only have been in virtue of that sovereign power called omnipotent which does not belong to any legislature in the United States. The legislature of New Hampshire has the same power over this charter which belonged to the king who granted it and no more. By the law of England, the power to create corporations is a part of the royal prerogative.¹ By the revolution, this power may be considered as having devolved on the legislature of the state, and it has accordingly been exercised by the legislature. But the king cannot abolish a corporation, or new-model it, or alter its powers, without its assent. This is the acknowledged and well-known doctrine of the common law. "Whatever might have been the notion in former times," says Lord Mansfield, "it is most certain now that the corporations of the universities are lay corporations; and that the crown cannot take away from them any rights that have been formerly subsisting in them under old charters or prescriptive usage."²

Corporate franchises can only be forfeited by trial and judgment.³ In case of a new charter or grant to an existing corporation, it may accept or reject it as it pleases.⁴ It may accept such part of the grant as it chooses, and reject the rest.⁵ In the very nature of things a charter cannot be forced upon anybody. No one can be compelled to accept a grant; and without acceptance the grant is necessarily void.⁶ It cannot be pretended that the legislature, as suc-

1 1 Black, 472, 473.

2 3 Burr. 1656.

3 3 T. R. 244. *King v. Pasmore.*

4 *King v. Vice Chancellor of Cambridge*, 3 Burr. 1656, 3 T. R. 240—Lord Kenyon.

5 *Idem*, 1661, and *King v. Pasmore*, *ubi supra*.

6 *Ellis v. Marshall*, 2 Mass. Rep. 277: 1 Kyd on Corporations.

cessor to the king in this part of his prerogative, has any power to revoke, vacate, or alter this charter. If, therefore, the legislature has not this power by any specific grant contained in the constitution; nor as included in its ordinary legislative powers; nor by reason of its succession to the prerogatives of the crown in this particular, on what ground would the authority to pass these acts rest, even if there were no prohibitory clauses in the constitution and the bill of rights?

But there *are* prohibitions in the constitution and bill of rights of New Hampshire, introduced for the purpose of limiting the legislative power and protecting the rights and property of the citizens. One prohibition is "that no person shall be deprived of his property, immunities, or privileges, put out of the protection of the law, or deprived of his life, liberty, or estate, but by judgment of his peers or the law of the land."

In the opinion, however, which was given in the court below, it is denied that the trustees under the charter had any property, immunity, liberty, or privilege in this corporation, within the meaning of this prohibition in the bill of rights. It is said that it is a public corporation and public property; that the trustees have no greater interest in it than any other individuals; that it is not private property, which they can sell or transmit to their heirs, and that therefore they have no interest in it; that their office is a public trust, like that of the governor or a judge, and that they have no more concern in the property of the college than the governor in the property of the state, or than the judges in the fines which they impose on the culprits at their bar; that it is nothing to them whether their powers shall be extended or lessened, any more than it is to their honors whether their jurisdiction shall be enlarged or diminished. It is necessary, therefore, to inquire into the true nature and character of the corporation which was created by the charter of 1769.

There are divers sorts of corporations; and it may be safely admitted that the legislature has more power over some than others.¹ Some corporations are for government

1 1 Wooddeson, 474: 1 Black, 467.

and political arrangement; such, for example, as cities, counties, and towns in New England. These may be changed and modified as public convenience may require, due regard being always had to the rights of property. Of such corporations, all who live within the limits are of course obliged to be members, and to submit to the duties which the law imposes on them as such. Other civil corporations are for the advancement of trade and business, such as banks, insurance companies, and the like. These are created, not by general law, but usually by grant. Their constitution is special. It is such as the legislature sees fit to give, and the grantees to accept.

The corporation in question is not a civil, although it is a lay corporation. It is an eleemosynary corporation. It is a private charity, originally founded and endowed by an individual, with a charter obtained for it at his request, for the better administration of his charity. "The eleemosynary sort of corporations are such as are constituted for the perpetual distributions of the free alms or bounty of the founder of them, to such persons as he has directed. Of this are all hospitals for the maintenance of the poor, sick, and impotent; and all colleges both in our universities and out of them."¹ Eleemosynary corporations are for the management of private property, according to the will of the donors. They are private corporations. A college is as much a private corporation as a hospital; especially a college founded, as this was, by private bounty. A college is a charity. "The establishment of learning," says Lord Hardwicke, "is a charity, and so considered in the statute of Elizabeth. A devise to a college, for their benefit is a laudable charity, and deserves encouragement."²

The legal signification of a *charity* is derived chiefly from the statute 43 Eliz. ch. 4. "Those purposes," says Sir William Grant, "are considered *charitable* which that statute enumerates."³ Colleges are enumerated as charities in that statute. The government, in these cases, lends its aid to perpetuate the beneficent intention of the donor, by granting a charter under which his private charity

1 1 Black, 471.

2 1 Ves. 537.

3 9 Ves. Jun. 405.

shall continue to be dispensed after his death. This is done either by incorporating the objects of the charity, as, for instance, the scholars in a college or the poor in a hospital, or by incorporating those who are to be governors or trustees of the charity.¹ In cases of the first sort, the founder is, by the common law, visitor. In early times it became a maxim, that he who gave the property might regulate it in future. This right of visitation descended from the founder to his heir as a right of property, and precisely as his other property went to his heir; and in default of heirs it went to the king, as all other property goes to the king for the want of heirs. The right of visitation arises from the property. It grows out of the endowment. The founder may, if he please, part with it at the time when he establishes the charity, and may vest it in others. Therefore, if he chooses that governors, trustees, or overseers should be appointed in the charter, he may cause it to be done, and his power of visitation will be transferred to them, instead of descending to his heirs. The persons thus assigned or appointed by the founder will be visitors, with all the powers of the founder, in exclusion of his heir.² The right of visitation, then, accrues to them, as a matter of property, by the gift, transfer, or appointment of the founder. This is a private right, which they can assert in all legal modes, and in which they have the same protection of the law as in all other rights. As visitors they may make rules, ordinances, and statutes, and alter and repeal them, as far as permitted so to do by the charter.³ Although the charter proceeds from the crown or the government, it is considered as the will of the donor. It is obtained at his request. He imposes it as the rule which is to prevail in the dispensation of his bounty in all future times. The king or government which grants the charter is not thereby the founder, but he who furnishes the funds. The gift of the revenues is the foundation.⁴ The leading case on this subject is *Phillips v. Bury*.⁵ This was an

1 1 Wood, 474.

3 2 Term. Rep. 350-1.

5 Reported in 1 Lord Raymond, 5; Comb. 265; Holt, 715; 1 Show, 360; 4 Mod. 106; Skinn, 447.

2 1 Black, 471.

4 1 Black, 480.

ejection brought to recover the rectory-house, etc., of Exeter College in Oxford. The question was, whether the plaintiff or defendant was legal rector. Exeter College was founded by an individual, and incorporated by a charter granted by Queen Elizabeth. The controversy turned upon the power of the visitor, and in the discussion of the cause, the nature of college charters and corporations was very fully considered.

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Lord Holt concludes his whole argument by again repeating, that that college was a *private corporation*, and that the founder had a right to appoint a visitor, and to give him such power as he saw fit.¹

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These opinions received the sanction of the house of lords, and they seem to be settled and undoubted law. Where there is a charter, vesting proper powers in trustees, or governors, they are visitors; and there is no control in anybody else; except only that the courts of equity or of law will interfere so far as to preserve the revenues and prevent the perversion of the funds, and to keep the visitors within their prescribed bounds.

“The foundations of colleges,” says Lord Mansfield, “are to be considered in two views; namely, as they are *corporations* and as they are *eleemosynary*. As eleemosynary, they are the creatures of the founder; he may delegate his power, either generally or specially; he may prescribe particular modes and manners, as to the exercise of part of it. If he makes a general visitor the person so constituted has all incidental power; but he may be restrained as to particular instances. The founder may appoint a special visitor for a particular purpose, and no further. The founder may make a general visitor; and yet appoint an inferior particular power, to be executed without going to the visitor in the first instance.”² And even if the king be founder, if he grant a charter, incorporating trustees and governors, *they are visitors*, and the

1 1 Lord Ray, 9.

2 St. John's College, Cambridge, v. Todington, 1 Burr. 200.

king cannot visit.¹ A subsequent donation, or ingrafted fellowship, falls under the same general visitatorial power, if not otherwise specially provided.²

In New England, and perhaps throughout the United States, eleemosynary corporations have been generally established in the latter mode; that is, by incorporating governors, or trustees, and vesting in them the right of visitation. Small variations may have been in some instances adopted; as in the case of Harvard College, where some power of inspection is given to the overseers, but not, strictly speaking, a visitatorial power, which still belongs, it is apprehended, to the fellows or members of the corporation. In general, there are many donors. A charter is obtained, comprising them all, or some of them, and such others as they choose to include, with the right of appointing their successors. They are thus the visitors of their own charity, and appoint others, such as they may see fit, to exercise the same office in time to come. All such corporations are private. The case before the court is clearly that of an eleemosynary corporation. It is, in the strictest legal sense, a private charity. In *King v. St. Catharine's Hall*,³ that college is called a private eleemosynary lay corporation. It was endowed by a private founder, and incorporated by letters patent. And in the same manner was Dartmouth College founded and incorporated. Doctor Wheelock is declared by the charter to be its founder. It was established by him, on funds contributed and collected by himself.

As such founder, he had a right of visitation, which he assigned to the trustees, and they received it by his consent and appointment, and held it under the charter. He appointed these trustees visitors, and in that respect to take place of his heir. Little, probably, did he think at that time, that the legislature would ever take away this property and these privileges, and give them to others. Little did he suppose that this charter secured to him and his successors no legal rights. Little did the other donors

1 *Attorney General v. Middleton*, 2 Ves. 328.

2 *Green v. Rutherford*, *ubi supra*; *St. John's College v. Todington*, *ubi supra*.

3 4 Term. Rep. 233.

think so. If they had, the college would have been, what the university is now, a thing upon paper, existing only in name.

The numerous academies in New England have been established substantially in the same manner. They hold their property by the same tenure, and no other. Nor has Harvard College any surer title than Dartmouth College. It may today have more friends; but tomorrow it may have more enemies. Its legal rights are the same. So also of Yale College; and, indeed, of all the others. When the legislature gives to these institutions, it may and does accompany its grants with such conditions as it pleases. The grant of lands by the legislature of New Hampshire to Dartmouth College, in 1789, was accompanied with various conditions. When donations are made, by the legislature or others, to a charity already existing, without any condition, or the specification of any new use, the donation follows the nature of the charity. Hence the doctrine, that all eleemosynary corporations are private bodies. They are founded by private persons, and on private property. The public cannot be charitable in these institutions. It is not the money of the public, but of private persons, which is dispensed. It may be public, that is general, in its uses and advantages; and the state may very laudably add contributions of its own to the funds; but it is still private in the tenure of the property, and in the right of administering the funds.

If the doctrine laid down by Lord Holt, and the house of lords, in *Phillips v. Bury*, and recognized and established in all the other cases, be correct, the property of this college was private property; it was vested in the trustees by the charter, and to be administered by them, according to the will of the founder and donors, as expressed in the charter. They had, therefore, as they contend, privileges, property, and immunities, within the true meaning of the bill of rights. They had rights, and still have them, which they can assert against the legislature, as well as against other wrongdoers. It makes no difference, that the estate is holden for certain trusts. The legal estate is still theirs. They have a right in the

property, and they have a right of visiting and superintending the trust; and this is an object of legal protection, as much as any other right. The charter declares that the powers conferred on the trustees are "privileges, advantages, liberties, and immunities"; and that they shall be forever holden by them and their successors. The New Hampshire bill of rights declares that no one shall be deprived of his "property, privileges, or immunities," but by judgment of his peers, or the law of the land. The argument on the other side is, that, although these terms may mean something in the bill of rights, they mean nothing in this charter. But they are terms of legal signification, and very properly used in the charter. They are equivalent with *franchises*. Blackstone says that *franchise* and *liberty* are used as synonymous terms. And after enumerating other liberties and franchises, he says: "It is likewise a franchise for a number of persons to be incorporated and subsist as a body politic, with a power to maintain perpetual succession and do other corporate acts; and each individual member of such a corporation is also said to have a franchise or freedom."¹

Liberties is the term used in Magna Charta as including franchises, privileges, immunities, and all the rights which belong to that class. Professor Sullivan says, the term signifies the "*privileges* that some of the subjects, whether single persons or bodies corporate, have above others by the lawful grant of the king; as the chattels of felons or outlaws, and the lands *and privileges of corporations*."²

The privilege, then, of being a member of a corporation, under a lawful grant, and of exercising the rights and powers of such member, is such a privilege, *liberty* or *franchise*, as has been the object of legal protection, and the subject of a legal interest, from the time of Magna Charta to the present moment. The plaintiffs have such an interest in this corporation, individually, as they could assert and maintain in a court of law, not as agents of the public, but in their own right. Each trustee has a *franchise*, as if he be disturbed in the enjoyment of it, he would have redress, on appealing to the law, as promptly

as for any other injury. If the other trustees should conspire against any one of them to prevent his equal right and voice in the appointment of a president or professor, or in the passing of any statute or ordinance of the college, he would be entitled to his action, for depriving him of his franchise. It makes no difference, that this property is to be holden and administered, and these franchises exercised, for the purpose of diffusing learning. No principle and no case establishes any such distinction. The public may be benefited by the use of this property. But this does not change the nature of the property, or the rights of the owners. The object of the charter may be public good; so it is in all other corporations; and this would as well justify the resumption or violation of the grant in any other case as in this. In the case of an advowson, the use is public, and the right cannot be turned to any private benefit or emolument. It is nevertheless a legal private right, and the *property* of the owner, as emphatically as his freehold. The rights and privileges of trustees, visitors, or governors of incorporated colleges, stand on the same foundation. They are so considered, both by Lord Holt and Lord Hardwicke.¹

To contend that the rights of the plaintiffs may be taken away, because they derive from them no pecuniary benefit or private emolument, or because they cannot be transmitted to their heirs, or would not be assets to pay their debts, is taking an extremely narrow view of the subject. According to this notion, the case would be different, if, in the charter, they had stipulated for a commission on the disbursement of the funds; and they have ceased to have any interest in the property, because they have undertaken to administer it gratuitously.

It cannot be necessary to say much in refutation of the idea, that there cannot be a legal interest, or ownership, in anything which does not yield a pecuniary profit; as if the law regarded no rights but the rights of money, and of visible, tangible property. Of what nature are all rights of suffrage? No elector has a particular personal interest; but each has a legal right, to be exercised at his

1 Phillips v. Bury.—Green v. Rutherford, *ubi supra*. Vide also 2 Black. 21.

own discretion, and it cannot be taken away from him. The exercise of this right directly and very materially affects the public; much more so than the exercise of the privileges of a trustee of this college. Consequences of the utmost magnitude may sometimes depend on the exercise of the right of suffrage by one or a few electors. Nobody was ever yet heard to contend, however, that on that account the public might take away the right, or impair it. This notion appears to be borrowed from no better source than the repudiated doctrine of the three judges in the Aylesbury case.¹ That was an action against a returning officer for refusing the plaintiff's vote, in the election of a member of parliament. Three of the judges of the king's bench held, that the action could not be maintained because, among other objections, "it was not any matter of profit, either *in presenti*, or *in futuro*." It would not enrich the plaintiff *in presenti*, nor would it *in futuro* go to his heirs, or answer to pay his debts. But Lord Holt and the house of lords were of another opinion. The judgment of the three judges was reversed, and the doctrine they held, having been exploded for a century, seems now for the first time to be revived.

Individuals have a right to use their own property for purposes of benevolence, either towards the public, or towards other individuals. They have a right to exercise this benevolence in such lawful manner as they may choose; and when the government has induced and excited it, by contracting to give perpetuity to the stipulated manner of exercising it, to rescind this contract, and seize on the property, is not law, but violence. Whether the state will grant these franchises, and under what conditions it will grant them, it decides for itself. But when once granted, the constitution holds them to be sacred, till forfeited for just cause.

That all property, of which the use may be beneficial to the public, belongs therefore to the public, is quite a new doctrine. It has no precedent, and is supported by no known principle. Doctor Wheelock might have answered his purposes, in this case, by executing a private

¹ Ashby v. White, 2 Lord Raym. 938.

deed of trust. He might have conveyed his property to trustees, for precisely such uses as are described in this charter. Indeed, it appears that he had contemplated the establishing of his school in that manner, and had made his will, and devised the property to the same persons who were afterwards appointed trustees in the charter. Many literary and other charitable institutions are founded in that manner, and the trust is renewed, and conferred on other persons, from time to time, as occasion may require. In such a case, no lawyer would or could say, that the legislature might divest the trustees, constituted by deed or will, seize upon the property, and give it to other persons, for other purposes. And does the granting of a charter, which is only done to perpetuate the trust in a more convenient manner, make any difference? Does or can this change the nature of the charity, and turn it into a public political corporation? Happily, we are not without authority on this point. It has been considered and adjudged. Lord Hardwicke says, in so many words, "The charter of the crown cannot make a charity more or less public, but only more permanent than it would otherwise be."¹

The granting of the corporation is but making the trust perpetual, and does not alter the nature of the charity. The very object sought in obtaining such charter, and in giving property to such a corporation, is to make and keep it private property and to clothe it with all the security and inviolability of private property. The intent is, that there shall be a legal private ownership, and that the legal owners shall maintain, and protect the property, for the benefit of those for whose use it was designed. Who ever endowed the public? Who ever appointed a legislature to administer his charity? Or who ever heard, before, that a gift to a college, or hospital, or an asylum, was, in reality, nothing but a gift to the state?

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I hope enough has been said to show that the trustees possessed vested liberties, privileges, and immunities,

1 2 Atk. 87, Attorney-General v. Pearce.

under this charter; and that such liberties, privileges, and immunities, being once lawfully obtained and vested, are as inviolable as any vested rights of property whatever. Rights to do certain acts, such, for instance, as the visitation and superintendence of a college and the appointment of its officers, may surely be vested rights, to all legal intents, as completely as the right to possess property. A late learned judge of this court has said, "When I say that a *right* is vested in a citizen, I mean that he has the power to do *certain actions*, or to possess *certain things*, according to the law of the land."¹

If such be the true nature of the plaintiffs' interests under this charter, what are the articles in the New Hampshire bill of rights which these acts infringe?

They infringe the second article; which says, that the citizens of the state have a right to hold and possess property. The plaintiffs had a legal property in this charter; and they had acquired property under it. The acts deprive them of both. They impair and take away the charter; and they appropriate the property to new uses, against their consent. The plaintiffs cannot now hold the property acquired by themselves, and which this article says they have a right to hold.

They infringe the twentieth article. By that article it is declared that, in questions of property, there is a right to trial. The plaintiffs are divested, without trial or judgment.

They infringe the twenty-third article. It is therein declared that no retrospective laws shall be passed. This article bears directly on the case. These acts must be deemed to be retrospective, within the settled construction of that term. What a retrospective law is, has been decided, on the construction of this very article, in the circuit court for the first circuit. The learned judge of that circuit says: "Every statute which takes away or impairs vested rights, acquired under existing laws, must be deemed retrospective."² That all such laws are retrospective was decided also in the case of *Dash v. Van*

1 3 Dall. 394.

2 2 Gal. 103, *Society v. Wheeler*.

Kleek,¹ where a most learned judge quotes this article from the constitution of New Hampshire, with manifest approbation, as a plain and clear expression of those fundamental and unalterable principles of justice, which must lie at the foundation of every free and just system of laws. Can any man deny that the plaintiffs had rights, under the charter, which were legally vested, and that by these acts those rights are impaired?

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These acts infringe also the thirty-seventh article of the constitution of New Hampshire; which says, that the powers of government shall be kept separate. By these acts, the legislature assumes to exercise a judicial power. It declares a forfeiture, and resumes franchises, once granted, without trial or hearing.

If the constitution be not altogether waste-paper, it has restrained the power of the legislature in these particulars. If it has any meaning, it is that the legislature shall pass no act directly and manifestly impairing private property and private privileges. It shall not judge by act. It shall not decide by act. It shall not deprive by act. But it shall leave all these things to be tried and adjudged by the law of the land.

The fifteenth article has been referred to before. It declares that no one shall be "deprived of his property, immunities, or privileges, but by the judgment of his peers or the law of the land." Notwithstanding the light in which the learned judges in New Hampshire viewed the rights of the plaintiffs under the charter, and which has been before adverted to, it is found to be admitted in their opinion, that those rights are privileges within the meaning of this fifteenth article of the bill of rights. Having quoted that article, they say: "That the right to manage the affairs of this college is a privilege, within the meaning of this clause of the bill of rights, is not to be doubted." In my humble opinion, this surrenders the point. To resist the effect of this admission, however, the learned judges add: "But how a privilege can be

protected from the operation of the law of the land by a clause in the constitution, declaring that it shall not be taken away but by the law of the land, is not very easily understood." This answer goes on the ground that the acts in question are laws of the land, within the meaning of the constitution. If they be so, the argument drawn from this article is fully answered. If they be not so, it being admitted that the plaintiffs' rights are "privileges," within the meaning of the article, the argument is not answered, and the article is infringed by the acts. Are, then, these acts of the legislature, which affect only particular persons and their particular privileges, laws of the land?

Let this question be answered by the text of Blackstone. "And first it (i. e. law) is a *rule*: not a transient, sudden order from a superior to or concerning a particular person; but something permanent, uniform, and universal. Therefore a particular act of the legislature to confiscate the goods of Titius, or to attain him of high treason, does not enter into the idea of a municipal law; for the operation of this act is spent upon Titius only, and has no relation to the community in general; it is rather a sentence than a law."¹ Lord Coke is equally decisive and emphatic. Citing and commenting on the celebrated twenty-ninth chapter of Magna Charta, he says: "No man shall be disseized, etc., unless it be by the lawful judgment, that is, verdict of equals, or by the law of the land, that is (to speak it once for all), by the due course and process of law."² Have the plaintiffs lost their franchises by "due course and process of law?" On the contrary, are not these acts "particular acts of the legislature, which have no relation to the community in general and which are rather sentences than laws?"

By the law of the land is most clearly intended the general law; a law which hears before it condemns; which proceeds upon inquiry, and renders judgment only after trial. The meaning is, that every citizen shall hold his life, liberty, property, and immunities under the protection of the general rules which govern society. Every-

1 1 Black. Com. 44.

2 Coke, 2 In. 46.

thing which may pass under the form of an enactment is not therefore to be considered the law of the land. If this were so, acts of attainder, bills of pains and penalties, acts of confiscation, acts reversing judgments, and acts directly transferring one man's estate to another, legislative judgments, decrees and forfeitures in all possible forms would be the law of the land.

Such a strange construction would render constitutional provisions of the highest importance completely inoperative and void. It would tend directly to establish the union of all powers in the legislature. There would be no general permanent law for courts to administer or for men to live under. The administration of justice would be an empty form, an idle ceremony. Judges would sit to execute legislative judgments and decrees; not to declare the law or to administer the justice of the country. "Is that the law of the land," said Mr. Burke, "upon which, if a man go to Westminster Hall, and ask counsel by what title or tenure he holds his privilege or estate *according to the law of the land*, he should be told, that the law of the land is not yet known; that no decision or decree has been made in his case; that when a decree shall be passed, he will then know *what the law of the land is?* Will this be said to be the law of the land, by any lawyer who has a rag of a gown left upon his back, or a wig with one tie upon his head?"

That the power of electing and appointing the officers of this college is not only a right of the trustees as a corporation, generally, and in the aggregate, but that each individual trustee has also his own individual franchise in such right of election and appointment, is according to the language of all the authorities. Lord Holt says: "It is agreeable to reason and the rules of law, that a franchise should be vested in the corporation aggregate, and yet the benefit of it to redound to the particular members, and to be enjoyed by them in their private capacity. Where the privilege of election is used by particular persons, *it is a particular right, vested in every particular man.*"¹

1 2 Lord Ray, 952.

If the view which has been taken of this question be at all correct, this was an eleemosynary corporation, a private charity. The property was private property. The trustees were visitors, and the right to hold the charter, administer the funds, and visit and govern the college, was a franchise and privilege, solemnly granted to them. The use being public in no way diminishes their legal estate in the property, or their title to the franchise. There is no principle, nor any case, which declares that a gift to such a corporation is a gift to the public. The acts in question violate property. They take away privileges, immunities, and franchises. They deny to the trustees the protection of the law; and they are retrospective in their operation. In all which respects they are against the constitution of New Hampshire.

The plaintiffs contend, in the second place, that the acts in question are repugnant to the tenth section of the first article of the constitution of the United States. The material words of that section are: "No state shall pass any bill of attainder, *ex post facto* law, or law impairing the obligation of contracts."

It has already been decided in this court, that a *grant* is a contract, within the meaning of this provision; and that a grant by a state is also a contract, as much as the grant of an individual. In *Fletcher v. Peck*,¹ this court says: "A contract is a compact between two or more parties, and is either executory or executed. An executory contract is one in which a party binds himself to do, or not to do, a particular thing; such was the law under which the conveyance was made by the government. A contract executed is one in which the object of contract is performed; and this, says Blackstone, differs in nothing from a grant. The contract between Georgia and the purchasers was executed by the grant. A contract executed, as well as one which is executory, contains obligations binding on the parties. A grant, in its own nature, amounts to an extinguishment of the right of the grantor, and implies a contract not to reassert that right. If, under a fair construction of the constitution, grants are compre-

hended under the term contracts, is a grant from the state excluded from the operation of the provision? Is the clause to be considered as inhibiting the state from impairing the obligation of contracts between two individuals, but as excluding from that inhibition contracts made with itself? The words themselves contain no such distinction. They are general, and are applicable to contracts of every description. If contracts made with the state are to be exempted from their operation, the exception must arise from the character of the contracting party, not from the words which are employed. Whatever respect might have been felt for the state sovereignties, it is not to be disguised that the framers of the constitution viewed with some apprehension the violent acts which might grow out of the feelings of the moment; and that the people of the United States, in adopting that instrument, have manifested a determination to shield themselves and their property from the effects of those sudden and strong passions to which men are exposed. The restrictions on the legislative power of the states are obviously founded in this sentiment; and the constitution of the United States contains what may be deemed a bill of rights for the people of each state.”

It has also been decided that a grant by a state before the revolution is as much to be protected as a grant since.¹ But the case of *Terrett v. Taylor*, before cited, is of all others most pertinent to the present argument. Indeed, the judgment of the court in that case seems to leave little to be argued or decided in this. “A private corporation,” say the court, “created by the legislature, may lose its franchises by a *misuser* or a *nonuser* of them; and they may be resumed by the government under a judicial judgment upon a *quo warranto* to ascertain and enforce the forfeiture. This is the common law of the land, and is a tacit condition annexed to the creation of every such corporation. Upon a change of government, too, it may be admitted that such exclusive privileges attached to a private corporation as are inconsistent with the new government, may be abolished. In respect, also,

1 *New Jersey v. Wilson*, 7 *Cranch*, 164.

to *public* corporations which exist only for public purposes, such as counties, towns, cities, and so forth, the legislature may, under proper limitations, have a right to change, modify, enlarge, or restrain them, securing, however, the property for the uses of those for whom, and at whose expense it was originally purchased. But that the legislature can repeal statutes creating private corporations, or confirming to them property already acquired under the faith of previous laws, and by such repeal can vest the property of such corporations exclusively in the state, or dispose of the same to such purposes as they please, without the consent or default of the corporators, we are not prepared to admit; and we think ourselves standing upon the principles of natural justice, upon the fundamental laws of every free government, upon the spirit and letter of the constitution of the United States, and upon the decisions of most respectable judicial tribunals, in resisting such a doctrine."

This court, then, does not admit the doctrine that a legislature can repeal statutes creating private corporations. If it cannot repeal them altogether, of course it cannot repeal any part of them, or impair them, or essentially alter them, without the consent of the corporators. If, therefore, it has been shown that this college is to be regarded as a private charity, this case is embraced within the very terms of that decision. A grant of corporate powers and privileges is as much a contract as a grant of land. What proves all charters of this sort to be contracts is, that they must be accepted to give them force and effect. If they are not accepted, they are void. And in the case of an existing corporation, if a new charter is given it, it may even accept part and reject the rest. In *Rex v. Vice-Chancellor of Cambridge*,¹ Lord Mansfield says: "There is a vast deal of difference between a new charter granted to a new corporation (who must take it as it is given), and a new charter given to a corporation already in being, and acting either under a former charter or under prescriptive usage. The latter, a corporation already existing, are not obliged to accept the new charter

in toto, and to receive either all or none of it; they may act partly under it, and partly under their old charter or prescription. The validity of these new charters must turn upon the acceptance of them." In the same case Mr. Justice Wilmot says: "It is the concurrence and acceptance of the university that gives the force to the charter of the crown." In the *King v. Pasmore*,¹ Lord Kenyon observes: "Some things are clear: when a corporation exists capable of discharging its functions, the crown cannot obtrude another charter upon them; they may either accept or reject it."²

In all cases relative to charters, the acceptance of them is uniformly alleged in the pleadings. This shows the general understanding of the law, that they are grants or contracts; and that parties are necessary to give them force and validity. In *King v. Dr. Askew*,³ it is said: "The crown cannot oblige a man to be a corporator, without his consent; he shall not be subject to the inconveniences of it, without accepting it and assenting to it." These terms, "acceptance" and "assent," are the very language of contract. In *Ellis v. Marshall*,⁴ it was expressly adjudged that the naming of the defendant among others, in an act of incorporation, did not, of itself, make him a corporator; and that his assent was necessary to that end. The court speak of the act of incorporation as a grant, and observe: "That a man may refuse a grant, whether from the government or an individual, seems to be a principle too clear to require the support of authorities." But Justice Buller in *King v. Pasmore*, furnishes, if possible, a still more direct and explicit authority. Speaking of a corporation for government, he says: "I do not know how to reason on this point, better than in the manner urged by one of the relator's counsel, who considered the grant of incorporation to be a compact between the crown and a certain number of the subjects, the latter of whom undertake, in consideration of the privileges which are bestowed, to exert themselves for the good government of the place." This language

1 3 Term. Rep. 240

3 4 Burr. 2200.

2 Vide also 1 Kyd on Cor. 65.

4 2 Mass. Rep. 269.

applies with peculiar propriety and force to the case before the court. It was in consequence of the "privileges bestowed," that Dr. Wheelock and his associates undertook to exert themselves for the instruction and education of youth in this college; and it was on the same consideration that the founder endowed it with his property.

There are, in this case, all the essential constituent parts of a contract. There is something to be contracted about, there are parties, and there are plain terms in which the agreement of the parties on the subject of the contract is expressed. There are mutual considerations and inducements. The charter recites that the founder, on his part, has agreed to establish his seminary in New Hampshire, and to enlarge it beyond its original design, among other things, for the benefit of that province; and thereupon a charter is given to him and his associates, designated by himself, promising and assuring to them, under the plighted faith of the state, the right of governing the college and administering its concerns in the manner provided in the charter. There is a complete and perfect grant to them of all the power of superintendence, visitation, and government. Is not this a contract? If lands or money had been granted to him and his associates, for the same purposes, such grant could not be rescinded. And is there any difference, in legal contemplation, between a grant of corporate franchises and a grant of tangible property? No such difference is recognized in any decided case, nor does it exist in the common apprehension of mankind.

It is, therefore, contended that this case falls within the true meaning of this provision of the constitution, as expounded in the decisions of this court; that the charter of 1769 is a contract, a stipulation or agreement, mutual in its considerations, express and formal in its terms, and of a most binding and solemn nature. That the acts in question impair this contract, has already been sufficiently shown. They repeal and abrogate its most essential parts.

A single observation may not be improper on the

opinion of the court of New Hampshire, which has been published. The learned judges who delivered that opinion have viewed this question in a very different light from that in which the plaintiffs have endeavored to exhibit it. After some general remarks, they assume that this college is a public corporation; and on this basis their judgment rests. Whether all colleges are not regarded as private and eleemosynary corporations, by all law writers, and all judicial decisions; whether this college was not founded by Dr. Wheelock; whether the charter was not granted at his request, the better to execute a trust, which he had already created; and whether Dartmouth College be not, therefore, in the strictest sense, a private charity, are questions which the learned judges do not appear to have discussed.

It is admitted in that opinion, that, if it be a private corporation, its rights stand on the same ground as those of an individual. The great question, therefore, to be decided is, To which class of corporations do colleges thus founded belong? And the plaintiffs have endeavored to satisfy the court, that, according to the well-settled principles and uniform decisions of law, they are private, eleemosynary corporations.

Much has heretofore been said on the necessity of admitting such a power in the legislature as has been assumed in this case. Many cases of possible evil have been imagined, which might otherwise be without remedy. Abuses, it is contended, might arise in the management of such institutions, which the ordinary courts of law would be unable to correct. But this is only another instance of that habit of supposing extreme cases, and then of reasoning from them, which is the constant refuge of those who are obliged to defend a cause, which, upon its merits, is indefensible. It would be sufficient to say in answer, that it is not pretended that there was here any such case of necessity. But a still more satisfactory answer is, that the apprehension of danger is groundless, and therefore, the whole argument fails. Experience has not taught us that there is danger of great evils or of great inconvenience from this source. Hitherto, neither

in our own country nor elsewhere have such cases of necessity occurred. The judicial establishments of the state are presumed to be competent to prevent abuses and violations of trust, in cases of this kind, as well as in all others. If they be not, they are imperfect, and their amendment would be a most proper subject for legislative wisdom. Under the government and protection of the general laws of the land, these institutions have always been found safe, as well as useful. They go on, with the progress of society, accommodating themselves easily, without sudden change or violence to the alterations which take place in its condition, and in the knowledge, the habits, and pursuits of men. The English colleges were founded in Catholic ages. Their religion was reformed with the general reformation of the nation; and they are suited perfectly well to the purpose of educating the Protestant youth of modern times. Dartmouth College was established under a charter granted by the provincial government; but a better constitution for a college, or one more adapted to the condition of things under the present government, in all material respects, could not now be framed. Nothing in it was found to need alteration at the revolution. The wise men of that day saw in it one of the best hopes of future times, and commended it as it was, with parental care, to the protection and guardianship of the government of the state. A charter of more liberal sentiments, of wiser provisions, drawn with more care, or in a better spirit, could not be expected at any time or from any source. The college needed no change in its organization or government. That which it did need was the kindness, the patronage, the bounty of the legislature; not a mock elevation to the character of a university, without the solid benefit of a shilling's donation to sustain the character; not the swelling and empty authority of establishing institutes and other colleges. This unsubstantial pageantry would seem to have been in derision of the scanty endowment and limited means of an unobtrusive, but useful and growing seminary. Least of all, was there a necessity, or pretense of necessity, to infringe its legal rights, violate

its franchises and privileges, and pour upon it these overwhelming streams of litigation.

But this argument, from necessity, would equally apply in all other cases. If it be well founded, it would prove, that, whenever any inconvenience or evil is experienced from the restrictions imposed on the legislature by the constitution, these restrictions ought to be disregarded. It is enough to say that the people have thought otherwise. They have most wisely chosen to take the risk of occasional inconvenience from the want of power, in order that there might be a settled limit to its exercise, and a permanent security against its abuse. They have imposed prohibitions and restraints; and they have not rendered these altogether vain and nugatory by conferring the power of dispensation. If inconvenience should arise which the legislature cannot remedy under the power conferred upon it, it is not answerable for such inconvenience. That which it cannot do within the limits prescribed to it, it cannot do at all. No legislature in this country is able, and may the time never come when it shall be able, to apply to itself the memorable expression of a Roman pontiff: "*Licet hoc DE JURE non possumus, volumus tamen DE PLENITUDINE POTESTATIS.*"

The case before the court is not of ordinary importance, nor of every-day occurrence. It affects not this college only, but every college, and all the literary institutions of the country. They have flourished hitherto, and have become, in a high degree, useful to the community. They have all a common principle of existence, the inviolability of their charters. It will be a dangerous, a most dangerous experiment, to hold these institutions subject to the rise and fall of popular parties and the fluctuations of political opinions. If the franchise may be at any time taken away, or impaired, the property, also, may be taken away, or its use perverted. Benefactors will have no certainty of effecting the object of their bounty; and learned men will be deterred from devoting themselves to the service of such institutions, from the precarious title of their offices. Colleges and halls will be deserted by all better spirits, and become a theater for the conten-

tions of politics. Party and faction will be cherished in the places consecrated to piety and learning. These consequences are neither remote nor possible only. They are certain and immediate.

It was, for many and obvious reasons, most anxiously desired that the question of the power of the legislature over this charter, should have been finally decided in the state court. An earnest hope was entertained that the judges of that court might have viewed the case in a light favorable to the rights of the trustees. That hope has failed. It is here that those rights are now to be maintained, or they are prostrated forever.

Daniel Webster.

ADDRESS AT COOPER INSTITUTE

(February 27, 1860.)

Mr. President and Fellow Citizens of New York: The facts with which I shall deal this evening are mainly old and familiar; nor is there anything new in the general use I shall make of them. If there shall be any novelty, it will be in the mode of presenting the facts, and the inferences and observations following that presentation. In his speech last autumn at Columbus, Ohio, as reported in the "New York Times," Senator Douglas said:

"Our fathers, when they framed the government under which we live, understood this question just as well, and even better, than we do now."

I fully indorse this, and I adopt it as a text for this discourse. I so adopt it because it furnishes a precise and an agreed starting-point for a discussion between Republicans and that wing of the Democracy headed by Senator Douglas. It simply leaves the inquiry: What was the understanding those fathers had of the question mentioned?

What is the frame of government under which we live? The answer must be, "The Constitution of the United

States." That Constitution consists of the original, framed in 1787, and under which the present government first went into operation, and twelve subsequently framed amendments, the first ten of which were framed in 1789.

Who were our fathers that framed the Constitution? I suppose the "thirty-nine" who signed the original instrument may be fairly called our fathers who framed that part of the present government. It is almost exactly true to say they framed it, and it is altogether true to say they fairly represented the opinion and sentiment of the whole nation at that time. Their names, being familiar to nearly all, and accessible to quite all, need not now be repeated.

I take these "thirty-nine," for the present, as being "our fathers who framed the government under which we live." What is the question which, according to the text, those fathers understood "just as well, and even better, than we do now"?

It is this: Does the proper division of local from Federal authority, or anything in the Constitution, forbid our Federal Government to control as to slavery in our Federal Territories?

Upon this, Senator Douglas holds the affirmative, and Republicans the negative. This affirmation and denial form an issue; and this issue—this question—is precisely what the text declares our fathers understood "better than we." Let us now inquire whether the "thirty-nine," or any of them, ever acted upon this question; and if they did, how they acted upon it—how they expressed that better understanding. In 1784, three years before the Constitution, the United States then owning the Northwestern Territory, and no other, the Congress of the Confederation had before them the question of prohibiting slavery in that Territory; and four of the "thirty-nine" who afterward framed the Constitution were in that Congress, and voted on that question. Of these, Roger Sherman, Thomas Mifflin, and Hugh Williamson voted for the prohibition, thus showing that, in their understanding, no line dividing local from Federal authority, nor anything else, properly forbade the Federal Govern-

ment to control as to slavery in Federal territory. The other of the four, James McHenry, voted against the prohibition, showing that for some cause he thought it improper to vote for it.

In 1787, still before the Constitution, but while the convention was in session framing it, and while the Northwestern Territory still was the only Territory owned by the United States, the same question of prohibiting slavery in the Territory again came before the Congress of the Confederation; and two more of the "thirty-nine" who afterward signed the Constitution were in that Congress, and voted on the question. They were William Blount and William Few; and they both voted for the prohibition—thus showing that in their understanding no line dividing local from Federal authority, nor anything else, properly forbade the Federal Government to control as to slavery in Federal territory. This time the prohibition became a law, being part of what is now well known as the ordinance of '87.

The question of Federal control of slavery in the Territories seems not to have been directly before the convention which framed the original Constitution; and hence it is not recorded that the "thirty-nine," or any of them, while engaged on that instrument, expressed any opinion on that precise question.

In 1789, by the first Congress which sat under the Constitution, an act was passed to enforce the ordinance of '87, including the prohibition of slavery in the Northwestern Territory. The bill for this act was reported by one of the "thirty-nine"—Thomas Fitzsimmons, then a member of the House of Representatives from Pennsylvania. It went through all its stages without a word of opposition, and finally passed both branches without ayes and nays, which is equivalent to a unanimous passage. In this Congress there were sixteen of the thirty-nine fathers who framed the original Constitution. . . .

This shows that, in their understanding, no line dividing local from Federal authority, nor anything in the Constitution, properly forbade Congress to prohibit slavery in the Federal territory; else both their fidelity to correct

principle, and their oath to support the Constitution, would have constrained them to oppose the prohibition.

Again, George Washington, another of the "thirty-nine," was then President of the United States, and as such approved and signed the bill, thus completing its validity as a law, and thus showing that, in his understanding, no line dividing local from Federal authority, nor anything in the Constitution, forbade the Federal Government to control as to slavery in Federal territory.

No great while after the adoption of the original Constitution, North Carolina ceded to the Federal Government the country now constituting the State of Tennessee; and a few years later Georgia ceded that which now constitutes the States of Mississippi and Alabama. In both deeds of cession it was made a condition by the ceding States that the Federal Government should not prohibit slavery in the ceded country. Besides this, slavery was then actually in the ceded country. Under these circumstances, Congress, on taking charge of these countries, did not absolutely prohibit slavery within them. But they did interfere with it—take control of it—even there, to a certain extent. In 1798 Congress organized the Territory of Mississippi. In the act of organization they prohibited the bringing of slaves into the Territory from any place without the United States, by fine, and giving freedom to slaves so brought. This act passed both branches of Congress without yeas and nays. In that Congress were three of the "thirty-nine" who framed the original Constitution. . . . They all probably voted for it. Certainly they would have placed their opposition to it upon record if, in their understanding, any line dividing local from Federal authority, or anything in the Constitution, properly forbade the Federal Government to control as to slavery in Federal territory.

In 1803 the Federal Government purchased the Louisiana country. Our former territorial acquisitions came from certain of our own States; but this Louisiana country was acquired from a foreign nation. In 1804 Congress gave a territorial organization to that part of it which now constitutes the State of Louisiana. New Orleans,

lying within that part, was an old and comparatively large city. There were other considerable towns and settlements, and slavery was extensively and thoroughly intermingled with the people. Congress did not, in the Territorial Act, prohibit slavery; but they did interfere with it—take control of it—in a more marked and extensive way than they did in the case of Mississippi. The substance of the provision therein made in relation to slaves was:

1st. That no slave should be imported into the Territory from foreign parts.

2d. That no slave should be carried into it who had been imported into the United States since the first day of May, 1798.

3d. That no slave should be carried into it, except by the owner and for his own use as a settler; the penalty in all the cases being a fine upon the violator of the law, and freedom to the slave.

This act was also passed without ayes or nays. In the Congress which passed it there were two of the "thirty-nine." They were Abraham Baldwin and Jonathan Dayton. As stated in the case of Mississippi, it is probable they both voted for it. They would not have allowed it to pass without recording their opposition to it if, in their understanding, it violated either the line properly dividing local from Federal authority, or any provision of the Constitution.

In 1819-20 came and passed the Missouri question. Many votes were taken, by yeas and nays, in both branches of Congress, upon the various phases of the general question. Two of the "thirty-nine"—Rufus King and Charles Pinckney—were members of that Congress. Mr. King steadily voted for slavery prohibition and against all compromise, while Mr. Pinckney as steadily voted against slavery prohibition and against all compromises. By this, Mr. King showed that, in his understanding, no line dividing local from Federal authority, nor anything in the Constitution, was violated by Congress prohibiting slavery in Federal territory; while Mr. Pinckney, by his votes, showed that, in his understanding, there

was some sufficient reason for opposing such prohibition in that case.

The cases I have mentioned are the only acts of the "thirty-nine," or of any of them, upon the direct issue, which I have been able to discover.

To enumerate the persons who thus acted as being four in 1784, two in 1787, seventeen in 1789, three in 1798, two in 1804, and two in 1819-20, there would be thirty of them. But this would be counting John Langdon, Roger Sherman, William Few, Rufus King, and George Read each twice, and Abraham Baldwin three times. The true number of those of the "thirty-nine" whom I have shown to have acted upon the question which, by the text, they understood better than we, is twenty-three, leaving sixteen not shown to have acted upon it in any way.

Here, then, we have twenty-three out of our thirty-nine fathers "who framed the government under which we live," who have, upon their official responsibility and their corporal oaths, acted upon the question which the text affirms they "understood just as well, and even better, than we do now"; and twenty-one of them—a clear majority of the whole "thirty-nine"—so acting upon it as to make them guilty of gross political impropriety and wilful perjury if, in their understanding, any proper division between local and Federal authority, or anything in the Constitution they had themselves made, and sworn to support, forbade the Federal Government to control as to slavery in the Federal Territories. Thus the twenty-one acted; and, as actions speak louder than words, so actions under such responsibility speak still louder.

Two of the twenty-three voted against congressional prohibition of slavery in the Federal Territories, in the instances in which they acted upon the question. But for what reasons they so voted is not known. They may have done so because they thought a proper division of local from Federal authority, or some provision or principle of the Constitution, stood in the way; or they may, without any such question, have voted against the prohibition on what appeared to them to be sufficient grounds of expediency. No one who has sworn to support the

Constitution can conscientiously vote for what he understands to be an unconstitutional measure, however expedient he may think it; but one may and ought to vote against a measure which he deems constitutional if, at the same time, he deems it inexpedient. It, therefore, would be unsafe to set down even the two who voted against the prohibition as having done so because, in their understanding, any proper division of local from Federal authority, or anything in the Constitution, forbade the Federal Government to control as to slavery in Federal territory.

The remaining sixteen of the "thirty-nine," so far as I have discovered, have left no record of their understanding upon the direct question of Federal control of Slavery in the Federal Territories. But there is much reason to believe that their understanding upon that question would not have appeared different from that of their twenty-three compeers, had it been manifested at all.

For the purpose of adhering rigidly to the text, I have purposely omitted whatever understanding may have been manifested by any person, however distinguished, other than the thirty-nine fathers who framed the original Constitution; and, for the same reason, I have also omitted whatever understanding may have been manifested by any of the "thirty-nine" even on any other phase of the general question of slavery. If we should look into their acts and declarations on those other phases, as the foreign slave-trade, and the morality and policy of slavery generally, it would appear to us that on the direct question of Federal control of slavery in Federal Territories, the sixteen, if they had acted at all, would probably have acted just as the twenty-three did. Among that sixteen were several of the most noted antislavery men of those times,—as Dr. Franklin, Alexander Hamilton, and Gouverneur Morris,—while there was not one now known to have been otherwise, unless it may be John Rutledge, of South Carolina.

The sum of the whole is that of our thirty-nine fathers who framed the original Constitution, twenty-one—a

clear majority of the whole—certainly understood that no proper division of local from Federal authority, nor any part of the Constitution, forbade the Federal Government to control slavery in the Federal Territories; while all the rest had probably the same understanding. Such, unquestionably, was the understanding of our fathers who framed the original Constitution; and the text affirms that they understood the question “better than we.”

But, so far, I have been considering the understanding of the question manifested by the framers of the original Constitution. In and by the original instrument, a mode was provided for amending it; and as I have already stated, the present frame of “the government under which we live” consists of that original, and twelve amendatory articles framed and adopted since. Those who now insist that Federal control of slavery in Federal Territories violates the Constitution, point us to the provisions which they suppose it thus violates; and, as I understand, they all fix upon provisions in these amendatory articles, and not in the original instrument. The Supreme Court, in the *Dred Scott* case, plant themselves upon the fifth amendment, which provides that no person shall be deprived of “life, liberty, or property without due process of law”; while Senator Douglas and his peculiar adherents plant themselves upon the tenth amendment, providing that “the powers not delegated to the United States by the Constitution . . . are reserved to the States respectively, or to the people.”

Now, it so happens that these amendments were framed by the first Congress which sat under the Constitution—the identical Congress which passed the act, already mentioned, enforcing the prohibition of slavery in the North-western Territory. Not only was it the same Congress, but they were the identical, same individual men who, at the same session, and at the same time within the session, had under consideration, and in progress toward maturity, these constitutional amendments, and this act prohibiting slavery in all the territory the nation then owned. The constitutional amendments were introduced before, and passed after, the act enforcing the ordinance

of '87; so that, during the whole pendency of the act to enforce the ordinance, the constitutional amendments were also pending.

The seventy-six members of that Congress, including sixteen of the framers of the original Constitution, as before stated, were preëminently our fathers who framed that part of "the government under which we live" which is now claimed as forbidding the Federal Government to control slavery in the Federal Territories.

Is it not a little presumptuous in any one at this day to affirm that the two things which that Congress deliberately framed, and carried to maturity at the same time, are absolutely inconsistent with each other? And does not such affirmation become impudently absurd when coupled with the other affirmation, from the same mouth, that those who did the two things alleged to be inconsistent, understood whether they really were inconsistent better than we—better than he who affirms that they were inconsistent?

It is surely safe to assume that the thirty-nine framers of the original Constitution, and the seventy-six members of the Congress which framed the amendments thereto, taken together, do certainly include those who may be fairly called "our fathers who framed the government under which we live." And so assuming, I defy any man to show that any one of them ever, in his whole life, declared that, in his understanding, any proper division of local from Federal authority, or any part of the Constitution, forbade the Federal Government to control as to slavery in the Federal Territories. I go a step further. I defy any one to show that any man in the whole world ever did, prior to the beginning of the present century (and I might almost say prior to the beginning of the last half of the present century), declare that, in his understanding, any proper division of local from Federal authority, or any part of the Constitution forbade the Federal Government to control as to slavery in the Federal Territories. To those who now so declare I give not only "our fathers who framed the government under which we live," but with them all other living men within

the century in which it was framed, among whom to search, and they shall not be able to find the evidence of a single man agreeing with them.

Now, and here, let me guard a little against being misunderstood. I do not mean to say we are bound to follow implicitly in whatever our fathers did. To do so, would be to discard all the lights of current experience—to reject all progress, all improvement. What I do say is, that if we would supplant the opinions and policy of our fathers in any case, we should do so on evidence so conclusive, and arguments so clear, that even their great authority, fairly considered and weighed, cannot stand; and most surely not in a case whereof we ourselves declare they understood the question better than we.

If any man at this day sincerely believes that the proper division of local from Federal authority, or any part of the Constitution, forbids the Federal Government to control as to slavery in the Federal Territories, he is right to say so, and to enforce his position by all truthful evidence and fair argument he can. But he has no right to mislead others who have less access to history, and less leisure to study it, into the false belief that “our fathers who framed the government under which we live” were of the same opinion—thus substituting falsehood and deception for truthful evidence and fair argument. If any man at this day sincerely believes “our fathers who framed the government under which we live” used and applied principles, in other cases, which ought to have led them to understand that a proper division of local from Federal authority, or some part of the Constitution, forbids the Federal Government to control as to slavery in the Federal Territories, he is right to say so. But he should, at the same time, have the responsibility of declaring that, in his opinion, he understands their principles better than they did themselves; and especially should he not shirk the responsibility by asserting that they understood the question just as well and even better than we do now.

But enough! Let all who believe that “our fathers who framed the government under which we live under-

stood this question just as well, and even better than we do now," speak as they spoke, and act as they acted upon it. This is all Republicans ask, all Republicans desire, in relation to slavery. As those fathers marked it, so let it again be marked, as an evil not to be extended, but to be tolerated and protected only because of and so far as its actual presence among us makes that toleration and protection a necessity. Let all the guaranties those fathers gave it be not grudgingly, but fully and fairly maintained. For this Republicans contend, and with this, so far as I know or believe, they will be content.

And now, if they would listen—as I suppose they will not,—I would address a few words to the Southern people.

I would say to them: You consider yourselves a reasonable and a just people; and I consider that in the general qualities of reason and justice you are not inferior to any other people. Still when you speak of us Republicans, you do so only to denounce us as reptiles, or, at the best, as no better than outlaws. You will grant a hearing to pirates or murderers, but nothing like it to "Black Republicans." In all your contentions with one another, each of you deems an unconditional condemnation of "Black Republicanism" as the first thing to be attended to. Indeed, such condemnation of us seems to be an indispensable prerequisite—license, so to speak—among you to be admitted or permitted to speak at all. Now, can you or not be prevailed upon to pause and to consider whether this is quite just to us, or even to yourselves? Bring forward your charges and specifications, and then be patient long enough to hear us deny or justify.

You say we are sectional. We deny it. That makes an issue; and the burden of proof is upon you. You produce your proof; and what is it? Why, that our party has no existence in your section—gets no votes in your section. The fact is substantially true; but does it prove the issue? If it does, then, in case we should, without change of principle, begin to get votes in your section, we should thereby cease to be sectional. You cannot escape this conclusion; and yet, are you willing to

abide by it? If you are, you will probably soon find that we have ceased to be sectional, for we shall get votes in your section this very year. You will then begin to discover, as the truth plainly is, that your proof does not touch the issue. The fact that we get no votes in your section is a fact of your making, and not of ours.

And if there be fault in that fact, that fault is primarily yours, and remains so until you show that we repel you by some wrong principle or practice. If we do repel you by any wrong principle or practice, the fault is ours; but this brings you to where you ought to have started—to a discussion of the right or wrong of our principle. If our principle, put in practice, would wrong your section for the benefit of ours, or for any other object, then our principle, and we with it, are sectional, and are justly opposed and denounced as such. Meet us, then, on the question of whether our principle, put in practice, would wrong your section; and so meet us as if it were possible that something may be said on our side. Do you accept the challenge? No! Then you really believe that the principle which “our fathers who framed the government under which we live” thought so clearly right as to adopt it, and indorse it again and again, upon their official oaths, is in fact so clearly wrong as to demand your condemnation without a moment’s consideration.

Some of you delight to flaunt in our faces the warning against sectional parties given by Washington in his Farewell Address. Less than eight years before Washington gave that warning he had, as President of the United States, approved and signed an act of Congress enforcing the prohibition of slavery in the Northwestern Territory, which act embodied the policy of the government upon that subject up to and at the very moment he penned that warning; and about one year after he penned it, he wrote Lafayette that he considered that prohibition a wise measure, expressing in the same connection his hope that we should at some time have a confederacy of free States.

Bearing this in mind, and seeing that sectionalism has since arisen upon this same subject, is that warning a

weapon in your hands against us, or in our hands against you? Could Washington himself speak, would he cast the blame of that sectionalism upon us, who sustain his policy, or upon you, who repudiate it? We respect that warning of Washington, and we commend it to you, together with his example pointing to the right application of it.

But you say you are conservative,—eminently conservative,—while we are revolutionary, destructive, or something of the sort.

What is conservatism? Is it not adherence to the old and tried, against the new and untried? We stick to, contend for, the identical old policy on the point in controversy which was adopted by “our fathers who framed the government under which we live”; while you with one accord reject, and scout, and spit upon that old policy, and insist upon substituting something new.

True, you disagree among yourselves as to what that substitute shall be. You are divided on new propositions and plans, but you are unanimous in rejecting and denouncing the old policy of the fathers. Some of you are for reviving the foreign slave-trade; some for a Congressional slave-code for the Territories; some for Congress forbidding the Territories to prohibit slavery within their limits; some for maintaining slavery in the Territories through the judiciary; some for the “gur-reat pur-rinciple” that “if one man would enslave another, no third man should object,” fantastically called “popular sovereignty”; but never a man among you is in favor of Federal prohibition of slavery in Federal Territories, according to the practice of “our fathers who framed the government under which we live.” Not one of all your various plans can show a precedent or an advocate in the century within which our government originated.

Consider, then, whether your claim for conservatism for yourselves, and your charge of destructiveness against us, are based on the most clear and stable foundations.

Again, you say we have made the slavery question more prominent than it formerly was. We deny it. We admit that it is more prominent, but we deny that we

made it so. It was not we, but you, who discarded the old policy of the fathers. We resisted, and still resist, your innovation; and thence comes the greater prominence of the question. Would you have that question reduced to its former proportions? Go back to that old policy. What has been will be again, under the same conditions. If you would have the peace of the old times, readopt the precepts and policy of the old times.

You charge that we stir up insurrections among your slaves. We deny it; and what is your proof? Harper's Ferry! John Brown! John Brown was no Republican; and you have failed to implicate a single Republican in his Harper's Ferry enterprise. If any member of our party is guilty in that matter, you know it, or you do not know it. If you do know it, you are inexcusable for not designating the man and proving the fact. If you do not know it, you are inexcusable for asserting it, and especially for persisting in the assertion after you have tried and failed to make the proof. You need not be told that persisting in a charge which one does not know to be true is simply malicious slander.

Some of you admit that no Republican designedly aided or encouraged the Harper's Ferry affair, but still insist that our doctrines and declarations necessarily lead to such results. We do not believe it. We know we hold no doctrine, and make no declaration, which were not held to and made by "our fathers who framed the government under which we live." You never dealt fairly by us in relation to this affair. When it occurred, some important State elections were near at hand, and you were in evident glee with the belief that, by charging the blame upon us, you could get an advantage of us in those elections. The elections came, and your expectations were not quite fulfilled. Every Republican man knew that, as to himself at least, your charge was a slander, and he was not much inclined by it to cast his vote in your favor. Republican doctrines and declarations are accompanied with a continual protest against any interference whatever with your slaves, or with you about your slaves. Surely this does not encourage them to revolt. True, we do, in common with "our

fathers who framed the government under which we live," declare our belief that slavery is wrong; but the slaves do not hear us declare even this. For anything we say or do, the slaves would scarcely know there is a Republican party. I believe they would not, in fact, generally know it but for your misrepresentations of us in their hearing. In your political contests among yourselves, each faction charges the other with sympathy with Black Republicanism; and then, to give point to the charge, defines Black Republicanism to simply be insurrection, blood, and thunder among the slaves.

Slave insurrections are no more common now than they were before the Republican party was organized. What induced the Southampton insurrection, twenty-eight years ago, in which at least three times as many lives were lost as at Harper's Ferry? You can scarcely stretch your very elastic fancy to the conclusion that Southampton was "got up by Black Republicanism." In the present state of things in the United States, I do not think a general, or even a very extensive, slave insurrection is possible. The indispensable concert of action cannot be attained. The slaves have no means of rapid communication; nor can incendiary freemen, black or white, supply it. The explosive materials are everywhere in parcels; but there neither are, nor can be supplied, the indispensable connecting trains.

Much is said by Southern people about the affection of slaves for their masters and mistresses; and a part of it, at least, is true. A plot for an uprising could scarcely be devised and communicated to twenty individuals before some one of them, to save the life of a favorite master or mistress, would divulge it. This is the rule; and the slave revolution in Haiti was not an exception to it, but a case occurring under peculiar circumstances. The Gunpowder Plot of British history, though not connected with slaves, was more in point. In that case, only about twenty were admitted to the secret; and yet one of them, in his anxiety to save a friend, betrayed the plot to that friend, and, by consequence, averted the calamity. Occasional poisonings from the kitchen, and

open or stealthy assassinations in the field, and local revolts extending to a score or so, will continue to occur as the natural results of slavery; but no general insurrection of slaves, as I think, can happen in this country for a long time. Whoever much fears, or much hopes, for such an event, will be alike disappointed.

In the language of Mr. Jefferson, uttered many years ago, "It is still in our power to direct the process of emancipation and deportation peaceably, and in such slow degrees as that the evil will wear off insensibly, and their places be, *pari passu*, filled up by free white laborers. If, on the contrary, it is left to force itself on, human nature must shudder at the prospect held up."

Mr. Jefferson did not mean to say, nor do I, that the power of emancipation is in the Federal Government. He spoke of Virginia; and, as to the power of emancipation, I speak of the slaveholding States only. The Federal Government, however, as we insist, has the power of restraining the extension of the institution—the power to insure that a slave insurrection shall never occur on any American soil which is now free from slavery.

John Brown's effort was peculiar. It was not a slave insurrection. It was an attempt by white men to get up a revolt among slaves, in which the slaves refused to participate. In fact, it was so absurd that the slaves, with all their ignorance, saw plainly enough it could not succeed. That affair, in its philosophy, corresponds with the many attempts, related in history, at the assassination of kings and emperors. An enthusiast broods over the oppression of a people till he fancies himself commissioned by Heaven to liberate them. He ventures the attempt, which ends in little else than his own execution. Orsini's attempt on Louis Napoleon, and John Brown's attempt at Harper's Ferry, were, in their philosophy, precisely the same. The eagerness to cast blame on Old England in the one case, and on New England in the other, does not disprove the sameness of the two things.

And how much would it avail you if you could, by the use of John Brown, Helper's book, and the like, break

up the Republican organization? Human action can be modified to some extent, but human nature cannot be changed. There is a judgment and a feeling against slavery in this nation, which cast at least a million and a half of votes. You cannot destroy that judgment and feeling—that sentiment—by breaking up the political organization which rallies around it. You can scarcely scatter and disperse an army which has been formed into order in the face of your heaviest fire; but if you could, how much would you gain by forcing the sentiment which created it out of the peaceful channel of the ballot-box into some other channel? What would that other channel probably be? Would the number of John Browns be lessened or enlarged by the operation?

But you will break up the Union rather than submit to a denial of your constitutional rights.

That has a somewhat reckless sound; but it would be palliated, if not fully justified, were we proposing, by the mere force of numbers, to deprive you of some right plainly written down in the Constitution. But we are proposing no such thing.

When you make these declarations you have a specific and well-understood allusion to an assumed constitutional right of yours to take slaves into the Federal Territories, and to hold them there as property. But no such right is specifically written in the Constitution. That instrument is literally silent about any such right. We, on the contrary, deny that such a right has any existence in the Constitution, even by implication.

Your purpose, then, plainly stated, is that you will destroy the government, unless you be allowed to construe and force the Constitution as you please, on all points in dispute between you and us. You will rule or ruin in all events.

This, plainly stated, is your language. Perhaps you will say the Supreme Court has decided the disputed constitutional question in your favor. Not quite so. But waiving the lawyer's distinction between dictum and decision, the court has decided the question for you in a sort of way. The court has substantially said, it is your

constitutional right to take slaves into the Federal Territories, and to hold them there as property. When I say the decision was made in a sort of way, I mean it was made in a divided court, by a bare majority of the judges, and they not quite agreeing with one another in the reasons for making it; that it is so made as that its avowed supporters disagree with one another about its meaning, and that it was mainly based upon a mistaken statement of fact—the statement in the opinion that “the right of property in a slave is distinctly and expressly affirmed in the Constitution.”

An inspection of the Constitution will show that the right of property in a slave is not “distinctly and expressly affirmed” in it. Bear in mind, the judges do not pledge their judicial opinion that such right is impliedly affirmed in the Constitution; but they pledge their veracity that it is “distinctly and expressly” affirmed there—“distinctly,” that is, not mingled with anything else; “expressly,” that is, in words meaning just that, without the aid of any inference, and susceptible of no other meaning.

If they had only pledged their judicial opinion that such right is affirmed in the instrument by implication, it would be open to others to show that neither the word “slave” nor “slavery” is to be found in the Constitution, nor the word “property,” even, in any connection with language alluding to the things slave or slavery; and that wherever in that instrument the slave is alluded to, he is called a “person”; and wherever his master’s legal right in relation to him is alluded to, it is spoken of as “service or labor which may be due”—as a debt payable in service or labor. Also it would be open to show, by contemporaneous history, that this mode of alluding to slaves and slavery, instead of speaking of them, was employed on purpose to exclude from the Constitution the idea that there could be property in man.

To show all this is easy and certain.

When this obvious mistake of the judges shall be brought to their notice, is it not reasonable to expect

that they will withdraw the mistaken statement, and reconsider the conclusion based upon it?

And then it is to be remembered that "our fathers who framed the government under which we live"—the men who made the Constitution—decided this same constitutional question in our favor long ago; decided it without division among themselves when making the decision; without division among themselves about the meaning of it after it was made, and, so far as any evidence is left, without basing it upon any mistaken statement of facts.

Under all these circumstances, do you really feel yourselves justified to break up this government unless such a court decision as yours is shall be at once submitted to as a conclusive and final rule of political action? But you will not abide the election of a Republican President! In that supposed event, you say, you will destroy the Union; and then, you say, the great crime of having destroyed it will be upon us! That is cool. A highwayman holds a pistol to my ear, and mutters through his teeth, "Stand and deliver, or I shall kill you, and then you will be a murderer!"

To be sure, what the robber demanded of me—my money—was my own; and I had a clear right to keep it; but it was no more my own than my vote is my own; and the threat of death to me, to extort my money, and the threat of destruction to the Union, to extort my vote, can scarcely be distinguished in principle.

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Wrong as we think slavery is, we can yet afford to let it alone where it is, because that much is due to the necessity arising from its actual presence in the nation; but can we, while our votes will prevent it, allow it to spread into the national Territories, and to overrun us here in these free States? If our sense of duty forbids this, then let us stand by our duty fearlessly and effectively. Let us be diverted by none of those sophistical contrivances wherewith we are so industriously plied and belabored,—contrivances such as groping for some

middle ground between the right and the wrong, vain as the search for a man who should be neither a living man nor a dead man; such as a policy of "don't care," on a question about which all true men do care; such as Union appeals beseeching true Union men to yield to disunionists, reversing the Divine rule, and calling not the sinners, but the righteous to repentance; such as invocations to Washington, imploring men to unsay what Washington said, and undo what Washington did.

Neither let us be slandered from our duty by false accusations against us, nor frightened from it by menaces of destruction to the government, nor of dungeons to ourselves. Let us have faith that right makes might, and in that faith let us to the end dare to do our duty as we understand it.

Abraham Lincoln. (Complete works edited by Nicolay & Hay, published by The Century Company.)

THE POLISH QUESTION

[The three selections which follow, reprinted from *The Outlook*, are discussions of the same question: the first is chiefly expository; the second and third are purely argumentative. From the material thus presented the student should be able to construct a brief argument of his own. The second and third articles form an interesting contrast in controversial method.]

I

On another page will be found a presentation of the two sides of a political and racial controversy that is shaking the Polish and the German peoples.

For over a hundred years the Poles, in customs, manners, speech, and religion a unified people, have been politically divided into three parts, one part under the domination of Russia, one part under the domination of Germany, and one part under the domination of Austria. There has been constant social and political conflict between the Poles in Russia and their Governors, and between the Poles in Germany and their Governors; while in Austria the Poles and the Government have learned to live in practical harmony. The Polish-German conflict is not difficult to explain. Having

political authority over the Poles living within her borders, Germany wishes to assimilate them, and the Poles refuse to be assimilated. They passionately hope for a reunion of the three divisions of their race in Russia, Austria, and Germany, and the reëstablishment of the Kingdom of Poland. In pursuance of this hope they exasperate the Germans by very reason of their fiery and often visionary temperament, and their lack of moderation. The Polish novelist, Henryk Sienkiewicz, says somewhere: "The German students drink . . . nor does it prevent them from becoming sober, practical men. But let a Slav [and the Poles are Slavs] acquire the habit and he will drink himself into an early grave."

But no faults of Polish racial, social, or political character can excuse political injustice towards a people who have notably stood for liberty, who have been the bulwark of Christianity in eastern Europe, the shelter of the Jews, the rescuer of Austria from the enslavement of the Turk, and last, not least, an aid in our own Revolution. Sobieski, Kosciuszko, Pulaski, stand high in the list of heroes. To appreciate what Poland has done in other domains, those of literature, science, and art, one has but to mention the names of Martin Gallus, the chronicler; of Copernicus, the mighty astronomer; of Mickiewicz, Poland's greatest poet; of Lelewel, the historian; of Matejko, the painter; of Chopin, Moszkowski, Paderewski, Sembrich, and the de Reszkes in the world of music, and Modjeska in that of the drama; finally of Sienkiewicz, one of the most eminent of living novelists, whose defense of his country may be found on another page. This is not his first appeal. He has before this appealed not so much to foreigners as to his brother Poles. He has begged them to permit no phase of the agitation against them to drive them into extreme words or acts. If the Poles no longer speak as loudly as they once did, their silence may be quite as ominous of discontent as it was in the days of "Thaddeus of Warsaw."

Despite all changes, the Poles remain, whether in Russia, Prussia, or Austria, a distinct, individual, and unconquered people. Their common aim is some day to

reestablish the old kingdom, but on a more democratic basis. They covet their old territory from the Baltic to the Black Sea, a long buffer state between Russia and the rest of Europe. Their patriotic societies in Russia and Prussia, at least, masquerade under all sorts of insignia and cause anxiety to the authorities.

Why not equally in Austria? Because she has understood how to assimilate them. One might think that Russia would understand better, because Russians and Poles are closely allied Slavs in temperament, language, and customs. Political assimilation, however, has not been accomplished either by Russia or Prussia. Austria has in great measure succeeded in Galicia, because she has permitted the Poles there to use their own language from the cradle to the grave. Instead of imposing a foreign tongue in the public schools, the wise Austrian rulers recognized the safety-valve in permitting an emotional people to "let off steam" in their own tongue. Accordingly, a Pole may live under Francis Joseph's benign rule and never hear anything but Polish.

In his temperate article on another page, defending the Prussian Government's action, Mr. Emil Klaessig frankly admits that the Prussian Poles were envious when they looked across the boundary into Galicia and saw what the Austrian Poles enjoyed. How different the harsh policy in Prussia which forbade children to speak Polish within the precincts of the Government schools or to appear with scarfs or neckties of Poland's national colors, a policy which would arbitrarily change Polish names of places to German and require that all speeches made within the German Empire should be spoken in the German tongue.

Of course in this Polish question Prussia is primarily concerned, not Germany, of which Prussia is by far the largest of the federated states. With their characteristic grasp of history, however, Germans, as a whole, do not forget that before the Polish Kingdom was founded the Polish prince was a feudatory of the German Empire, that German power itself was strengthened by the Germans even then living in Polish communities, and that

the Teutonic Knights early obtained release from the homage they owed for part of their dominions to the Polish Crown, and became Poland's enemies. When Frederick the Great, King of Prussia, acquired part of Poland at the partition, he bought lands and settled Prussians thereon. The present Prussian Government has long continued this policy, latterly at an enormous expenditure.

But Poland refuses to be colonized. The Government deems a sterner measure necessary. Color is given because of alleged increasing Polish disloyalty and traitorousness, the fact that Poland's border is inconveniently close to Berlin, and, what is of more importance, the claim of Prince von Bulow, the Imperial Chancellor, that a discontinuance of colonization would run counter to the wishes of the great mass of the German people. Hence a measure recently introduced into the Prussian Diet provides for a credit of nearly \$90,000,000 to acquire over 170,000 acres of Polish estates by condemnation proceedings under the law of eminent domain, and the settling of Germans thereon. It would thus compel forcible expulsion of the Poles, mitigated in no way by money payments. In introducing this measure the Chancellor explained that the artificially high prices of land in Poland had now prevented the Government from buying property in the open market in continuance of its colonization policy, and hence it should have the right to dispossess the Poles by legal means. How would our newly settled Scandinavians of the Northwest regard it if the Government of Minnesota suddenly decided to Americanize the State by forcible expropriation?

In our opinion, the bill is bad both politically and morally. Germany must indeed be threatened when the Government introduces such a measure. Granted a natural irritation if the discontented Poles are seen to be increasing proportionally faster in numbers than are the contented Germans, and a possible Slavonization peril looms large on the horizon. Will the discontent be but aggravated by the use of brute force in "the State's higher interests"? Surely such wide-awake statesmen as the

Kaiser and his Chancellor must recognize that the long day of aristocracy and autoeracy is drawing to its close, to be succeeded by one of democracy and liberty.

In Canada, Latins and Anglo-Saxons, representing different races, languages, religions, and customs, live amicably side by side. Germany aspires to be a colonial power. So far, German colonization *at home* and abroad has not been a marked success. We suggest Canadian liberty as worthy of imitation by Germany.

II.

THE POLISH SIDE

The twentieth century is now witnessing an unprecedented fact, an insult to civilization, to right, to justice, to all the human notions which are the basis of the life and intellectual culture of modern societies.

For a long time there had existed in Prussian Poland a committee of colonization commissioned to buy the estates of the Poles, in order to implant German people in their stead. These estates were paid with funds realized by the taxes to which the Poles themselves contributed as Prussian subjects. If, moreover, we mention the martyrdom of Polish children in German schools, and the recent bill prohibiting the use of the Polish tongue in public meetings, it will seem impossible that iniquity and the contempt of equality before the laws can go further. And yet the Government whose principle is "Might is above right" would not rest satisfied.

Consequently a bill of *Compulsory Dispossession* has been proposed to the Prussian Parliament. The Poles subjected to the Prussian scepter would then at last be rooted out of that soil which is their country, the beloved land where, for thousands of years, long, uninterrupted generations have been born, have lived, and remain buried.

That part of Poland which the monarchy of the Hohenzollerns has taken hold of has never kindled revolutionary flames; she behaves peacefully, strictly fulfills the hard duties that events impose upon her; she pays the taxes,

and yields a military contingent whose courage was more than once admired by Bismarck.

Therefore, when the first news about the compulsory dispossession was published in the European papers, this plan was deemed to be the wild, mad lucubration of a few fanatics bereft not only of moral sense but of reason. People were persuaded that a civilized state that considers the right of property as the corner-stone of the social edifice could never go so far as to tread so brutally both upon this principle and upon the most elementary notions of justice. Nobody believed that such a crime might be committed in a society which asserts its claims to being Christian.

And yet Chancellor von Bulow has presented to the Prussian Parliament a bill tending to the *Compulsory Dispossession of the Poles*, and the Parliament, instead of sending back the Chancellor to the study of what is right and moral, has sent the bill to be examined.

The official news of this event has already spread throughout the world, and, much to the credit of mankind, we must state that everywhere it has raised a unanimous cry of indignation and protestation. The European newspapers, without any distinction of tendencies or parties—and, besides, the whole of the independent German papers—have condemned the way of acting of the Prussian Government as a shameful outrage against the natural rights of humanity, and against the very constitution existent in the Kingdom of Prussia.

Even such a Government is compelled to take that universal indignation and contempt into account.

But we wish this protestation against barbarity to last as long as possible and to take the most extensive proportions. We therefore do not consider the clamors of the press as sufficient, obliged as it is to deal every day with novelty. This protestation will get a lasting life and at the same time an immense weight only if throughout the world the most eminent men in science, literature, and arts are willing to express their opinion individually. This shall be the definitive judgment of universal conscience against an unprecedented crime; and this uni-

versal conscience against an unprecedented crime shall also be the mightiest plea for the defense of an important fraction of a civilized nation that has well deserved of mankind.

We in no way intend meddling with the private affairs of the monarchy of the Hohenzollerns; we have to deal with a question about which every civilized man is entitled to speak his mind, chiefly those who, among the nations, are the pillars of civilization and intellectual culture.

This is why we ask Americans to state their opinion about the bill presented by the Prussian Government, whose aim is to turn the Poles out of their estates by means of compulsory dispossession. We do not suppose, of course, that this opinion may be anything else than an utterance of indignation and reprobation, but a public censure coming from America will be the condemnation of the greatest iniquity and infamy in the history of the twentieth century. Such an answer will fill the Polish nation with sanguine hope and will be of great help to all the honest people of Germany who, unwilling to see their country disgraced before the world, boldly attack the hateful scheme of the Prussian Government.

Henryk Sienkiewicz.

III.

THE GERMAN SIDE

From time to time for the last score of years the attention of the world at large has been attracted to the so-called German-Polish question, concerning the regulation of the relations between the Prussian Government and the Polish population of those eastern portions of Prussia that formerly were a part of the old Kingdom of Poland. Two circumstances have for some time made the Polish question again a topic of international discussion, and special efforts have been made to enlist the sympathy of the American people for the fate of the Poles.

The controversy has assumed an acute phase by the introduction in the Prussian Diet of a bill by the Government

authorizing it to enforce by condemnation proceedings the sale to the so-called settlement commission of lands in Prussian Poland held by Poles. This bill has, naturally, aroused great indignation among the Poles, and this indignation has been publicly voiced in an appeal to the intellectual world by the Polish author Sienkiewicz. This appeal is a bitter attack on the Prussian policies in connection with the Polish question. There have been so many misrepresentations of the character of these policies, not only by Sienkiewicz and other leading Poles, but also by newspapers all over the world, that it might be worth while to hear some of the facts which have forced the Prussian Government to consider drastic measures against the Poles.

Until about thirty years ago conditions developed normally in the Polish provinces. German culture advanced there continually, as was perfectly natural. At the end of the '70's, however, there was a change. The Poles began to dislodge the German element of the population as a result of the political conditions in Austria. The Austrian Government had continually made concessions to the various nationalities composing its population, playing one element against another. This policy was embodied in the unfortunate "Metternich system." The Austrian Poles proved to be the cleverer diplomats in this political game, granting every desire of the Government after gaining a corresponding concession for Galicia. In this way the Province of Galicia acquired a political position practically independent of Austria. The Prussian Poles, witnessing the success of the Austrian Poles, determined to follow suit and began an effective agitation for this purpose. No German who did not sympathize with this movement of the Poles in the Prussian provinces had a chance of making a living. The German merchants in the cities were boycotted and had to make room for Poles. Trade was largely Polandized. Political errors on the part of the Prussian Government in a degree helped to support the agitation. During the struggle between the German States and the Roman Catholic Church, the Polish clergy were largely instru-

mental in the Polandization of those eastern Prussian provinces, owing to their great influence over the inhabitants of the rural districts.

Economical mistakes were also made by the Prussian Government in supporting the great landed property, which in the main was owned by Poles. These land-owners have always been disloyal, having never relinquished their dream of a Polish State with aristocratic rule, as it formerly existed. They also sought to further the Polish movement by replacing the German laborers on the large estates with Poles. Later, when industry began to develop, this process of Polandization worked automatically, the German farm-hands leaving for the large cities to enjoy higher wages, the Poles on the estates thus having a free hand. This would have been impossible if an opportunity had been given to German farm-hands to settle down as independent farmers on little farms of their own.

The political success of the Austrian Poles gave an ever-increasing stimulus to the Polish agitation, and the Prussian Poles made no secret of their hope of reëstablishing an independent Polish State. They communicated with the Poles in Austria, and undoubtedly also maintain a secret understanding with the Russian Poles. The great danger of the situation lies in the fact that they want to sever the bonds that bind them to the countries to which they politically belong.

Sienkiewicz, in his appeal, says that the Prussian Poles have always been loyal to the Prussian Government. That, as a matter of fact, was true in the past, but is no longer true. There is no exaggeration in the statement often made that the Polish provinces of Prussia constitute a German Ireland. The Prussian Poles have achieved more than the Irish. The latter have not driven out the British, while the Poles have invaded German territory. This condition is the more serious in view of the fact that Germany is wedged in between Latin and Slavic races, and it can hardly view with indifference the strengthening of a Slavic element inimical to Germanism by the creation of a new nation.

The logical development of affairs would have been for the German element to have made inroads on Polish territory in order to strengthen the barrier against the Slavic element. Now that this was not possible, precaution must at least be taken to prevent the Germans being driven out of their own country adjacent to the Polish provinces. That the Germans are already being crowded out of such territories is shown by the Polandization of Upper Silesia. Nothing, therefore, is more ridiculous than the contention of the Poles that Prussia is crowding them out.

At the end of the 80's, Prussia inaugurated the policy of buying up Polish lands and settling thereon German farmers. This has proved a failure as far as Germanization is concerned; it strengthened the cause of the Poles, who, with the money received from the Prussian Government, bought and Polandized more farms than could be Germanized. The policy now proposed as embodied in the new bill is not to pay the Polish landholders excessive sums for their property, but to acquire it through condemnation proceedings, allowing compensation equal to the real value of the property. It is this measure which the Poles decry as barbarous and which has been so characterized by many newspapers in different parts of the world that have no knowledge of the actual state of affairs justifying the measure. By American critics of the bill it has been said that the injustice thereby done to the Poles would be equivalent to an attempt to apply the same proceeding to the Germans in America. But it is to be borne in mind that the Germans in America are in full harmony with the laws and have never thought of creating an independent state here. American critics overlook the fact that a higher law, that of national self-preservation, is the impelling motive for the adoption of a policy of this nature. Those who bear in mind that the United States for four years carried on the most sanguinary war in history in the interest of this higher law will readily understand the constrained position of Prussia in its relation to the Poles.

Emil Klaessig.

STUDENT'S BRIEF AND ARGUMENT

BRIEF

Should every able-bodied American youth be required to serve in the militia for a period sufficient to give a reasonably adequate military training?

INTRODUCTION

- I. The present methods of military training in the United States are as follows:
 - A. The training of officers at West Point;
 - B. The training of volunteer citizens in the National Guard;
 - C. The training of students in agricultural colleges and in military schools throughout the country.
- II. Definition of terms:
 - A. Militia is now known as National Guard;¹
 - B. A reasonably adequate military training is a working knowledge of the drills and army regulations.²
- III. It is granted that the United States should be prepared for war, no matter how remote any danger seems.
- IV. The points of special issue are as follows:
 - A. Does the present system of military training properly insure the United States against sudden war?
 - B. Would a compulsory system of militia service afford better protection to the United States in case of war or internal disorders?
 - C. Would such a system be too great a burden upon the nation?
 - D. Is such a system against the principles of democratic government?

¹ War Department Report, 1908, pp. 29-30.

² General George B. McClellan, quoted in *Overland Monthly*, Vol. 53, p. 458.

BRIEF PROPER

Every able-bodied American youth should be required to serve in the militia for a period sufficient to give a reasonably adequate military training, for

- I. The present system of military training does not insure the United States proper protection against sudden war, for
 - A. We lack soldiers enough to defend us against any first-class power, for
 1. The War Department estimates that it would take at least 350,000 men for the first line of defence in case of war with any first-class power.¹
 2. The Regular Army consists of but 53,000 officers and men who are stationed in the United States.¹
 3. But 60 per cent. of the 110,000 militia are available for immediate service.¹
 - B. The United States has not enough officers to carry out the system now established, for
 1. West Point does not graduate officers enough for the Regular Army in time of peace, for ²
 - a. Secretary Taft recommended in 1907 that 612 new officers be commissioned at once.¹
 2. The service is greatly impaired by the number of officers detached to train the pupils in the agricultural colleges and military schools.¹
 - C. The drill given to the students in the agricultural colleges is not effective, for
 1. In the majority of the colleges but two hours a week are devoted to drill.³

1 War Department Report, 1908, pp. 30-48.

2 Congressional Record, Vol. 36, p. 1386.

3 Report of American Nat. Educational Ass'n., 1908, pp. 61-80.

2. The drill is not thorough, for
 - a. Although United States army officers have charge of the drill in most of the colleges
 - b. Yet the principles, merely to comply with the government requirements, give them but the barest encouragement.¹
- D. Students at the military schools are of practically no value in war, for
 1. In 1907 they were but a group of 22,000 boys of various ages.²
 2. The course at these schools is more of a preparatory than of a military nature.
- E. Our volunteer army, upon which we must place our greatest reliance, is but a paper army, for³
 1. It is unorganized and untrained.
 2. It is assumed to be more powerful than it really is.
- II. The only way in which the United States can be well defended in time of war or internal disorders is by a system of compulsory militia service for its young men, for
 - A. Training in times of peace is the only means of national security in times of danger,⁴ for
 1. It is impossible to teach even patriotic citizens military drill and discipline at a moment's notice, for
 - a. Military drill and discipline are not acquired easily.
 2. We cannot assume that time will be given us to train our young men.²
 3. In war today fortune does not follow the brave.⁵
 - B. The volunteer army of the United States cannot succeed unless the men who form it have a fairly adequate military training, for

1 Report of American Nat. Educational Ass'n., 1908, pp. 61-80.

2 War Department Report, 1908, pp. 54-58.

3 Congressional Record, Vol. 36, p. 1388.

4 General Fraser, *Fortnightly Review*, Vol. 87, pp. 159-164.

5 Lord Milner, *19th Century*, Vol. 51, pp. 318-324.

1. The entire structure of an army rests upon proper training and discipline,¹ for
 - a. Each man must know his duty and perform his share of the work so that the whole will be able to move effectively.
- C. The argument that patriotism would prompt the American youth to learn military drill is unfounded, for
 1. Of the 14,670,000 males available for military service in this country, less than seven-tenths of one per cent. have volunteered to learn military drill by serving in the militia.²
 2. He has other pleasures and diversions which occupy his time.
- III. The adoption of such a system will not be a burden upon the nation, for
 - A. The expense will not be prohibitive, for
 1. Many states already possess armories and drill-halls which may be used.
 2. Our history shows that our habitual economy in time of peace has always been more than counter-balanced by the consequent unduly heavy cost of preparing suddenly for war.³
 - B. The time spent in drilling would not be a loss to the American youth, for
 1. It would teach him to shoot.⁴
 2. It would improve his physical condition, for
 - a. Military drill combined with the "setting-up" drill gives an erect carriage of body, better breathing, better circulation, and a greater power of endurance.⁵

1 Col. Thomas Wiehelm, *Overland Monthly*, Vol. 53, pp. 461-464.

2 War Department Report, 1908, p. 63.

3 General George B. McClellan, quoted in *Overland Monthly*, Vol. 53, p. 465.

4 President's Message, Dec. 14, 1908.

5 Report of American Nat. Educational Ass'n., 1908, pp. 72-75.

3. It would improve his moral condition, for
 - a. Military drill gives a training in attention and in the habit of prompt obedience which cannot be excelled by any other means.¹
- IV. Compulsory militia service for the American youth is not contrary to the principles of a democratic form of government, for
 - A. Each citizen of a democracy should know how to defend it, for
 1. In a democratic state having a national militia the men who decide upon a war are the men who have to wage it.²
 - B. A man's first duty is to his country.
 - C. The fact that self-defence is recognized as the first law of nations shows a compulsory militia service to be in accord with the principles of democratic government, for
 1. Compulsory service in the militia is but a means of providing for self-defence.

CONCLUSION

- I. Since the present system of military training does not insure us against sudden war;
- II. Since the only way to secure protection is to force our young men to serve in the militia until they obtain a reasonably adequate military education;
- III. Since such a system would not be a burden to the nation; and
- IV. Since it is not contrary to the principles of democratic government,—

Therefore, every able-bodied American youth should be required to serve in the militia for a period sufficient to give him a reasonably adequate military training.

1 Dr. Sargent, *19th Century*, Vol. 46, pp. 281-289.

2 Lord Milner, *19th Century*, Vol. 51, p. 325.

ARGUMENT

Should every able-bodied American youth be required to serve in the militia for a period sufficient to give a reasonably adequate military training?

At the present time there are at least three distinct methods of military training for the young, able-bodied men of the United States. We have at West Point a national school from which our officers for the army are graduated. In the militia we have a system which enables those of our citizens who join it to acquire a military education that is adequate and well enough for a man of average intelligence. Besides these two methods of general training we have a third by which the students in the agricultural colleges and the so-called military schools throughout the country are taught military drill as a regular part of their education.

Knowing the present means by which our young men may acquire military knowledge, we are better able to discuss the question as to whether or not every able-bodied American youth should be required to serve in the militia for a period sufficient to give a reasonably adequate military training. Let us first understand what we mean by "militia" and "a reasonably adequate military training." According to the Act of Congress, January 21, 1903, later amended May 27, 1908, "the militia shall consist of every able-bodied male citizen of the respective States and Territories and the District of Columbia . . . who is more than eighteen and less than forty-five years of age, and shall be divided into two classes: The organized militia to be known as the National Guard . . . ; the remainder to be known as the Reserve Militia." We shall of necessity consider that portion "known as the National Guard." As for a reasonably adequate military training, perhaps as good a definition as any has been given by General George B. McClellan, who says that it is possessed by men "passably disciplined, accustomed to the use of their weapons and to act together, instructed in the rudiments, at least, of field service—in such a condition, in

brief, that a few weeks' service in the camp and field will convert them into respectable soldiers." ¹

Although the danger of war seems to be less now than ever, it is generally conceded that the United States should be prepared for war, no matter how remote the possibility seems, as a total unpreparedness presents too many temptations even to a foe otherwise weak. I propose a scheme of preparation which is very simple. It merely requires that every able-bodied American youth shall be obliged by law to join the National Guard for a period of at least three years, and shall be obliged to drill at least once a week. In addition to the weekly drill, he shall be required to attend a militia camp with his company for no less than seven consecutive days during the summer months. The difference between this plan and that of the National Guard is that continual attendance is not absolutely required by the latter. According to the report of the United States army officers who investigated the work of the National Guard in 1907, the military knowledge of the men was adequate and highly satisfactory. So that the knowledge gained by the men under the stricter compulsory system could not fail to be even better.

While arguing in favor of such a plan as this there arise certain important questions which must be fully discussed in order to see clearly its reasonableness and necessity. Does the present system of military training properly insure the United States against sudden war? Can we believe that a compulsory system of militia service is the best way to afford a better protection to the United States in case of war or internal disorders? Would such a system be too great a burden upon the nation? Or, is it that such a system is contrary to the principles of our democratic government?

In 1908, after a careful determination of the strengths of the leading nations of the world, the War Department gave out the statement that in case of war with any first-class power the United States would need at least 350,000 men in the first line of defence.² To compare with these

1 General George B. McClellan, quoted in *Overland Monthly*, Vol. 53, p. 458.

2 War Department Report, 1908, pp. 30-48.

figures let us see how many men we could put into the field if war were declared upon us tomorrow. Our Regular Army is small and consists of 53,000 officers and men scattered all over the country. There are 110,000 men enrolled in the National Guard, but it is computed that only seventy-five per cent. would be able to respond to a call to arms and that of these some twenty per cent. would be unable to meet the physical requirements of war-time. Thus but sixty per cent. of the original number, or 67,000, would be available for immediate service. This makes the actual strength of our first line of defence but 120,000, a little more than one-third of the smallest force that the War Department finds necessary.

But it is not men alone that the United States lacks; more officers are needed to lead the forces that we have.¹ Without officers our system of defence is like a ship without a rudder; it would be beaten to pieces by the first severe storm. Yet officers may not be had for the asking; they must be trained. The trouble is we are not training them fast enough. Although 250 are graduated annually from West Point, the number is not sufficient to supply the demand, as Secretary Taft recommended in 1908 that 612 more officers be commissioned at once.² This increase has been made necessary because the number of officers needed for new fortifications and for detached service has left the army improperly officered. To meet this increase militia officers must be drafted into the regular service.

In spite of the fact that the government has charge of the military training in the greater part of the State agricultural colleges, it cannot be said that the drill offered the students tends to produce such a satisfactory military education as we might expect. The reason for this is the attitude taken by the faculties of these colleges in regard to the Morrill Act, which sets aside a certain annual sum to be given to those State institutions of learning which devote not less than two hours a week to the drilling of their students. Such drilling the faculties seem to regard as an evil which must be endured if they are to have the

1 Congressional Record, Vol. 36, p. 1386.

2 War Department Report, 1908, pp. 30-48.

benefits resulting from the appropriation. So in order to make the results of the evil as small as possible they frown upon it and devote but the two hours to its practice, with the result that the opportunity to make their students take high rank in the militia is lost.¹ In the military schools it is a little different. Here the army officers acting as drill instructors, receive more encouragement. Yet a glance at the catalogue of any of these schools will show that the course is of a preparatory, rather than of a military, nature, as it must be since their avowed purpose is to prepare their students for higher institutions. So even with the highest approval of the faculty an extensive training cannot be given. Even if it were, the students would be of little value in case of war, for the registration books of such schools in the United States showed in 1907 that the total number was some 22,000 boys of all ages ranging from twelve to twenty.²

So much for the visible forces upon which we can rely in time of danger. Now let us turn for a moment to the Reserve Militia, the Volunteer Army in which we must place our greatest reliance. Where is it? Can you point to a body of men well organized and well trained in military tactics and say with pride, there is our Reserve Militia? Of course not. Yet you have always assumed that it did exist, that it was a national safeguard, our bulwark against disaster. As a matter of fact it never did exist,³ except on paper and in the hearts of trustful Americans. Indeed we have come to a pretty state of military affairs with a dearth of officers, a small army, an inadequate National Guard, and a hypothetical force as a main defence. Clearly our system of military training has not borne the fruit that it should.

But where is the remedy? What can we do to prepare ourselves against sudden attacks or unexpected intestine outbreaks? Train our men in time of peace;⁴ that is the only road to national security, for in war today fortune does not follow the brave.⁵ We cannot assume that in

1 Report of American Nat. Educational Ass'n., 1908, pp. 61-80.

2 War Department Report, 1908, pp. 54-58.

3 Congressional Record, Vol. 36, p. 1388.

4 General Fraser, *Fortnightly Review*, Vol. 87, pp. 159-164.

5 Lord Milner, *19th Century*, Vol. 51, pp. 318-324.

time of strife other nations will be considerate enough to permit us first to train our citizens before fighting. Neither can we assume that military drill and discipline may be infused at a moment's notice even into the most patriotic volunteers. Our Reserve Militia will not be successful unless the men in its ranks have a fair knowledge of these things, for it is not upon patriotism or braveness that the structure of an army rests, but upon proper training and discipline.¹ To make the whole effective, each man must know his duty, must know how to perform his small part.

One cannot argue that patriotism will prompt the American youth to learn military drill, for in the past less than seven-tenths of one per cent. of our men have volunteered to do so by serving in the militia. Of the 14,670,000 males available for military service in this country, but 110,000 belong to the National Guard at the present time.² But, you say, the fact that he has not joined in the past is no reason for thinking that he will not do so in the future when he sees that it is for the protection of the country. You may bring a horse to the water but he will not drink if he prefers to nibble the grass that grows beside the trough. Likewise you may bring a young man to see the usefulness of joining the militia, but he will not join if he prefers to follow other pursuits. So if it is by men versed in military tactics that our country must be defended, and if the large majority will not learn of their own free choice, we should institute a compulsory system of militia service, such as I have previously described. It is well to begin with the young men. As their time expires others will be constantly joining, thus creating a large active militia, while the older ones will form the nucleus of a substantial reserve force.

Such a system should not be burdensome, neither should it be held to be prohibitive because of expense. Many of the States already possess armories and halls that may be used for drilling; thus the first cost, which will naturally be the greatest will be considerably lessened. Granting that the expense will be large, the adoption of such a plan

1 Col. Thomas Wiehelm, *Overland Monthly*, Vol. 53, pp. 461-464.

2 War Department Report, 1908, p. 63.

is nevertheless the wisest policy. All our history shows that our habitual economy in time of peace has always been more than counterbalanced by the consequent unduly heavy cost of preparing suddenly for war.¹

On the other hand, our young men would not suffer loss of time or energy by drilling. In the first place, they would be taught shooting, which Theodore Roosevelt says "is the most important factor in the defence of the country," and which is an accomplishment that is becoming rarer and rarer every day.² Most gymnastic authorities agree with the statement of Professor Wilkinson that "military drill combined with the 'setting-up' drill gives an erect carriage to the body, better breathing, better circulation, and a greater power of endurance,"³ It is not our young men's physical condition alone that will be improved, but their moral condition as well, for military drill gives an unexcelled training in habits of attention and prompt obedience.⁴

It seems that two general objections to compulsory militia service are that it would involve a deplorable economic waste, inasmuch as it would withdraw young men for a time from the pursuits of industry, and that it would give the youth too great an opportunity to acquire vices. The first objection would scarcely apply to the system I have advocated, since the seven days taken from business during the summer would be a part of the vacation of the militiamen. As for their forming bad habits because they belong to a militia organization meeting once a week, that seems far-fetched. If a young man wishes to indulge in any kind of vice, he will do so, whether he belongs to the militia or not.

There is still another reason for compulsory militia service which is perhaps after all the strongest; it is in accordance with the principles of our democratic form of government. A man's first duty is to his country; with it he stands or falls. In such a State as ours the men who

1 General George B. McClellan, quoted in *Overland Monthly*, Vol. 53, p. 465.

2 President's Message, Dec. 14, 1908.

3 Report of American Nat. Educational Ass'n., 1908, pp. 72-75.

4 Dr. Sargent, *19th Century*, Vol. 46, pp. 281-289.

decide upon a war are the men who have to wage it.¹ It is upon them that the burden falls. It is to them that the State looks for her defenders. And if her citizens do not know how to protect her and will not learn of their own free choice, the first law of nations, which is self-defence, makes it necessary to take measures that will compel them to learn.

Since the present system of military training does not properly insure us against sudden war, it is essential that we adopt a system that will secure us ample protection. We find that the only remedy for present conditions is compulsory militia service for the young, able-bodied men. This system will not be a burden to the country, and is in accordance with the underlying principles of our form of government. This being the case, let us adopt the system which promises our young men a fairly adequate military education and which will create for the country a true army of defence.

Shaw
April 21, 1911

A PLEA FOR ARGUMENTATION

"Why should women be required to take argumentation? What good does it do them to read a mass of material on some question of only temporary or local importance, and work it into forensic form? Would not the time be better spent on French, or music, or literature—or something that contributes to general culture? What sufficient excuse can there be for compelling girls to argue?"

This is an old refrain, and is persistently repeated—so persistently, indeed, that at many women's colleges the course in argumentation has disappeared from the list of requirements for a degree. It is not surprising that objection is made to it:—not all students are prejudiced in favor of hard studies, and this course is by no means the least troublesome in the college curriculum. We agree, moreover, that there is little sense in compelling girls to

1 Lord Milner, *19th Century*, Vol. 51, p. 325.

argue, for argument's sake. But there is some excuse for the course, nevertheless, and we will endeavor to make clear what is is.

In order to discover what good it does a woman to write briefs and forensics, we must see in what the work consists, and what qualities of mind are needed for its successful accomplishment.

The first thing necessary in preparing an argument is to get a complete grasp of one's subject. One must determine with perfect definiteness and accuracy all that is meant by each of the words in which his proposition is phrased. After defining terms with care, one wonders, not infrequently, if he has ever before in his life really comprehended the full meaning of an English sentence—so great is the precision, so nice the distinction, required in this part of the work.

The next thing, after one has settled clearly what the question is about, is to go through a mass of material more or less closely related to the matter in hand, and select from it just such facts and theories as will really go to prove, or to strengthen, one side of the case. Due attention must at the same time be given to the points in which lies the strength of one's opponent and bits of proof must be picked out to balance or to weaken each piece of evidence he may bring forward. Here there is demand for the most careful discrimination; in this part of the work one must stick resolutely to the point, rejecting all except the telling facts, however interesting and worthy of attention the useless ones may be in themselves. He who says all that applies to the question at issue, and no more, is the one whose work has the greatest force and weight.

Next, the chosen material must be classified and put in order. There are naturally certain broad divisions of the proof, and under these narrower ones, and narrower. Each smallest bit of fact has a place of its own, and must be put into it, in order that it may do its proper share of work: its relation to every other fact must be decided, and its place in the whole structure must correspond to this relation. The whole proof must be so organized as to be at once logical, coherent, and forcible. Skilfully one must

lead his readers on, from lesser things to greater, quietly advancing step by step until he can say: "See, I have proved this to be true, and this and this—and now the whole is established." In our college forensics it is not the persuasiveness of the language, but the skilful exposition of facts in logical order, that makes good argument. Any one who has an orderly mind will not fare ill in the class in argumentation.

Accuracy, discrimination, orderliness—are not these worth teaching, even to women? Are not women, more than men, accused of jumping at hasty conclusions, of saying at random all that comes into their heads, and of jumbling ideas into an unintelligible mixture of sense and nonsense? It would seem that few courses of study could answer their needs better than this very bugbear of which we are speaking. Today, women are expected to talk, and to talk with sense and force. It is easy enough for them to learn things to talk about, for their perception is keen and their memory good. Their great need is of logical thinking and clear expression. The actual questions that a girl reads up for argumentation add little, usually, to her stock of information; but the lesson in grasping the question, and in selecting, classifying, and organizing material, is one so much needed that it makes of argumentation a "culture" course in a far stricter sense than are courses in French, music, and literature. Whenever a woman prepares a forensic she is truly cultivating her mind. She is learning the value of making orderly disposition of material in the pigeonholes of her own brain, where she can find it ready to be put into effective use at any moment. With more of mental discipline she can do with less of concrete fact—and the time spent on forensic work is, therefore, not ill-spent. The course in argumentation has an excuse for existing; and women who would be reasonable should take up the study feeling not ill-treated, but privileged.

FREEDOM OF THOUGHT AND SPEECH IN THE UNITED STATES

In the later part of October of last year, John Turner was arrested in New York; tried upon the charge of anarchy, and sentenced to be deported. This man had, until recently, been an organizer of labor unions in England. He was addressing a gathering upon some of the principles of anarchy at the time of his arrest. He was not in any way trying to excite his hearers to deeds of destruction; indeed, he did not believe in such means, being one of the so-called "philosophical" anarchists. Soon after his sentence of deportation had been delivered, a meeting of many prominent citizens of New York was held to protest against such action being taken. Turner, at the request of this meeting, decided to appeal his case and to test the law under which he was ordered to be removed from this country.

The law which will be called in question was passed by Congress, March 3, 1903. Its purpose is to prevent the spread of anarchy—particularly of the more objectionable type—in the United States. To accomplish this purpose it provides for the deportation of any immigrant who is not a believer in an organized government, or who is known to have expressed hostility to government of any kind. The law does not affect anyone who is a resident or a citizen of the United States. Even its most bitter enemy cannot call it very extreme or oppressive.

It gains its importance from the fact that it marks a distinct departure from the traditional policy of this country. We, who call ourselves Americans, have long gloried in the fact that here one may believe and say what he likes. He has only been restricted in expressing such beliefs when the expression contained threats or was slanderous in its nature. The makers of the constitution desired such freedom of expression and the nature of our government has tended to preserve it. Thus, we have looked with pity upon the closely watched subjects of the Czar or of the Kaiser.

The events which could move our government to depart in any way from this strongly-held policy had to be of consid-

erable weight. Indeed, they were of such a character that every American was aroused and shocked by them. The assassinations of Lincoln and Garfield brought unsuccessful attempts at repressive legislation. When, in the later part of the nineties, it was learned that many of the most dangerous anarchists in the world were on their way to this country, a strong effort was made to pass a law to prevent their landing. This attempt also failed. But, when McKinley was shot; when we learned that the assassin had no reason for complaint against the man, but aimed simply to destroy the head of the government; when we realized that there were many like this murderer and saw with horror how simple a matter it would be to slay all who were in the line of succession to the position of chief executive, then it was felt that some action was called for. The present law resulted,—aimed at immigrants, because most of our anarchy comes to us with those who have learned it under the terrible oppression of such places as Italy and Poland.

That some action was needed cannot be denied, but it is very doubtful whether such a law as the one that we have under discussion is advisable. It departs, as has been shown, from a long-established policy, and every such radical change makes our government less stable and more liable to become the victim of hot-headed enthusiasts. It excludes from this country many men of advanced ideas and great ability, who cannot be imagined as harmful to the nation. Such a one is Tolstoi. It attempts to rid this country of evil by casting it upon some other nation. At best it can only partly accomplish the purpose for which it was designed. But the most important objection is that it is a real, if slight, limitation of the right to freedom of thought and speech. In a country with a republican government such as ours such liberty is absolutely essential to the welfare of the nation. To have progress in the government the mass of the people must advance. This they cannot do without freedom; unless leaders of thought can go ahead of the crowd in their beliefs and can teach freely the revelations that they have received. Such liberty brings many evils; the absence of such liberty brings the destruction of any real democratic government.

PART III

DESCRIPTION

VINEYARD HAVEN

Vineyard Haven is a funnel-shaped bight about $1\frac{3}{8}$ miles long in a NE. and SW. direction and about $1\frac{1}{4}$ miles wide at the entrance; it is on the northern side of Martha's Vineyard, $12\frac{1}{2}$ miles WNW. $\frac{3}{8}$ W. from Cross Rip Light-vessel, $6\frac{1}{2}$ miles NW. from Cape Poge, and $3\frac{3}{4}$ miles SE. from Nobska Point Lighthouse.

The points at the entrance are East Chop and West Chop, each marked by a lighthouse. The harbor is easy of access and is the most important and generally used harbor of refuge for coasters between Provincetown and Narragansett Bay; it is exposed to northeasterly winds, but vessels with good ground tackle can ride out any gale. The greatest danger encountered by vessels at anchor in a northeast gale is from vessels with poor ground tackle, which are likely to drift and foul other vessels and then go ashore. The depth is sufficient for the largest vessels passing through Vineyard Sound; it ranges from 35 feet at the entrance to 15 feet near the head of the harbor. On the west shore, near the head of the harbor, is the town of Vineyard Haven, which has a little trade and daily communication by steamer with New Bedford. There is 13 feet of water at the end of the wharf at low water. On the east shore are numerous scattered houses and a wharf with 15 feet of water at its end at low water. A road leads from this wharf to Cottage City, which is an important summer resort.

The channel is unobstructed and the lead will be the best guide in selecting an anchorage. When well inside the entrance the water shoals gradually toward the western shore; toward the eastern shore the water shoals more abruptly and the shore should be given a berth of about 300 yards.

Vessels anchor, according to draft, anywhere from the points at the entrance to the head of the harbor, the light-draft vessels favoring the western shore.

Coal, in limited quantity, and fresh water can be obtained alongside the wharf for steamers of 15 feet draft or less; steamers of greater draft can have coal brought alongside in lighters. Provisions and some ship-chandler's stores can be had at Vineyard Haven.

There is one marine railway at Vineyard Haven, capacity about 200 tons, where vessels can be repaired. New Bedford is the nearest place at which repairs to the machinery of steamers can be made.

Storm warning displays are made on a staff near East Chop Lighthouse.

There is a U. S. Marine Hospital at Vineyard Haven to which seamen entitled to hospital treatment are sent.

The tidal currents have little velocity in the harbor; care should, however, be taken on the ebb, which sets westward, not to approach too closely to West Chop, as the current there sets on the ledges which make eastward and northward from the point.

United States Coast Pilot, Part III.

THE WIDGEON

Characteristics. Adult male: mantle white, marked with fine lines of dark gray; shoulders white, followed by bar of black; wing-patch green; longer wing-feathers and tail dark brown; head and neck chestnut, shading to buff on the forehead and to black on the throat; breast gray, tinged with rufous and shading to white below, which extends across the belly; sides marked with fine lines of dark gray; under tail-coverts black; bill slate blue, tipped with black; legs and feet dusky lead color. Soon after the mating season the male assumes plumage similar to the female. Female: upper parts grayish brown,—the feathers with paler margins; under parts

white, the breast buffish brown; under tail-coverts barred with brown; wing-patch grayish brown. Length 18 inches.

Nest. Concealed amid rank herbage or under a bush, on the margin of a lake; a deep bowl made of sedges and lined with grass and down.

Eggs. 7—12 (usually about 10); rich cream color or buff; average size 2.20 by 1.50.

Montague Chamberlain: *A Popular Handbook of the Ornithology of the United States and Canada.* (Copyright, 1891, by Little, Brown, and Company.)

WANTED

Edward A——, *alias* Charles M——, *alias* “Connie” B——, for forgery.

About 5 ft. 10 in. tall; slight build; weight about 148 lbs. Sloping shoulders; left shoulder carried a little higher than right. Puts head well forward in walking.

Light complexion; smooth-shaven; light brown hair, slightly curling over temples; gray-blue eyes, set close together; straight, medium-sized nose; high, narrow forehead; irregular mouth, drooping at right corner; thin lips; prominent gold-filling in lower teeth; short, round chin; small, flat ears. Has a half-inch scar (badly healed) on left cheek, and a small mole under right ear. Is thirty-four years old.

When last seen, was dressed in close-fitting double-breasted blue serge suit, blue and white striped shirt, black tie, black derby hat, and tan button-shoes.

Please communicate with Chief of Police, F——, Mass.

A STAGE SETTING

The scene represents a manicure establishment in New Bond Street. It is a front room upon the first floor with three French-windows affording a view of certain buildings on the east side of the street. On the left, furthest from the spectator, is a wide, arched opening, apparently leading to another apartment, in which is the door giving entrance to

the rooms from the staircase. Nearer, there is another French-window, opening on to an expanse of "leads" and showing the exterior of the wall of the further room above-mentioned. From the right, above the middle window, runs an ornamental partition, about nine feet in height, with panels of opaque glass. This partition extends more than half-way across the room, then runs forward for some distance, turns off at a sharp angle, and terminates between the arched opening and the window on the left. That part of the partition running from right to left is closed on its left side and forms, therefore, a separate room or compartment. Facing the audience, on the right, is a door admitting to this compartment; and, on the left, also in the partition opposite the windows on the right, is an opening with a looped-back portiere. The space between this opening and the further room forms a narrow anteroom, containing articles of furniture visible through the opening. Mirrors are affixed to the right wall, between the lower and the middle window and between the middle window and the partition, while on the left, between the window and the partition, is another mirror. A number of business cards are stuck in the frames of the mirrors. On the right, before each of the two lower windows, turned from the spectators, is a capacious arm-chair, made in cane open-work. Attached to the arms of these chairs are little screens—also made of cane—shielding, in a measure, the occupants of the chairs from observation. Upon both the right and left arms of these chairs are circular frames in cane, shaped to receive bowls of water. Above each of the screen-chairs stands a smaller chair, set to face the larger one; and beside the small chair, on its right hand, is a low table upon which are arranged the instruments and toilet necessities employed in the process of manicure. On the right, between the window and the partition, is a three-cornered what-not, on which are set out packets of soap and of powder and other articles of the toilet. At the further end of the room, in the centre, stands a desk laden with account-books; and above the desk, its back against the partition, is a chair. On the right is a hat-and-umbrella stand. Nearer, in the centre, is a large circular table on which are

displayed bottles of scent and liquid soap, cases of instruments for manicure, and some wooden bowls of bath-soap with lather brushes. On the right and left are ordinary chairs. Placed against the partition on the left, and facing the audience, is a cabinet, making a display similar to that upon the what-not. Nearer, on the left, there is another screen-chair set to face the audience; below it is a smaller seat and, by the side of the smaller seat, another little table with manicure tools, etc. Some framed photographs of ladies hang against the wood-work of the partition and in the wall-spaces; and in the lower and middle windows, on the right, bird-cages are suspended.

The light is that of a bright day in June.

Arthur W. Pinero: *The Gay Lord Quex*. (Reprinted by permission of Walter H. Baker and Company.)

A WINTER LANDSCAPE

The charm of the hour lay in its approaching dimness, in the low-gliding and pale-beaming sun. I was a mile from Thornfield, in a lane noted for wild roses in summer, for nuts and blackberries in autumn, and even now possessing a few coral treasures in hips and haws, but whose best winter delight lay in its utter solitude and leafless repose. If a breath of air stirred, it made no sound here; for there was not a holly, not an evergreen to rustle, and the stripped hawthorn and hazel bushes were still as the white worn stones which causewayed the middle of the path. Far and wide, on each side, there were only fields, where no cattle now browsed; and the little brown birds, which stirred occasionally in the hedge, looked like single russet leaves that had forgotten to drop From my seat I could look down on Thornfield: the gray and battlemented hall was the principal object in the vale below me; its woods and dark rookery rose against the west. I lingered till the sun went down amongst the trees, and sank crimson and clear behind them.

Charlotte Brontë: *Jane Eyre*.

A CORAL ISLAND

The isle—the undiscovered, the scarce believed in—now lay before them and close aboard; and Herrick thought that never in his dreams had he beheld anything more strange and delicate. The beach was excellently white, the continuous barrier of trees inimitably green; the land perhaps ten feet high, the trees thirty more. Every here and there, as the schooner coasted northward, the wood was intermitted; and he could see clear over the inconsiderable strip of land (as man looks over a wall) to the lagoon within; and clear over that, again, to where the far side of the atoll prolonged its pencilling of trees against the morning sky. He tortured himself to find analogies. So slender it seemed amidst the outrageous breakers, so frail and pretty, he would scarce have wondered to see it sink and disappear without a sound, and the waves close smoothly over its descent.

R. L. Stevenson and Lloyd Osbourne. *The Ebb Tide*.

A PINE FOREST

Beyond Kaluga we had to cross for a stretch of five miles a beautiful pine forest, which remains connected in my memory with some of the happiest reminiscences of my childhood. The sand in that forest was as deep as in an African desert, and we went all the way on foot, while the horses, stopping every moment, slowly dragged the carriages in the sand. When I was in my teens, it was my delight to leave the family behind, and to walk the whole distance by myself. Immense red pines, centuries old, rose on every side, and not a sound reached the ear except the voices of the lofty trees. In a small ravine a fresh crystal spring murmured, and a passer-by had left in it, for the use of those who should come after him, a small funnel-shaped ladle, made of birch bark, with a split stick for a handle. Noiselessly a squirrel ran up a tree, and the underwood was as full of mysteries as were the trees. In that forest my first love of nature and my first dim perception of its incessant life were born.

Prince Kropotkin: *Memoirs of a Revolutionist*.

DROUGHT IN THE JUNGLE

That spring, the *mohwa* tree, that Baloo was so fond of, never flowered. The greeny, cream-colored, waxy-blossoms were heat-killed before they were born, and only a few bad-smelling petals came down when he stood on his hind legs and shook the tree. Then, inch by inch, the untempered heat crept into the heart of the Jungle, turning it yellow, brown, and at last black. The green growths in the sides of the ravines burned up to broken wires and curled films of dead stuff; the hidden pools sank down and caked over, keeping the least footmark on their edges as if it had been cast in iron; the juicy-stemmed creepers fell away from the trees they clung to and died at their feet; the bamboos withered, clanking when the hot winds blew, and the moss peeled off the rocks deep in the Jungle, till they were as bare and as hot as the quivering blue boulders in the bed of the stream.

Rudyard Kipling: *The Second Jungle Book*.

AT THE DEVIL'S LIMEKILN

So on they went to the point, where the cyclopean wall of granite cliff, which forms the western side of Lundy, ends sheer in a precipice of some three hundred feet, topped by a pile of snow-white rock, bespangled with golden lichens. As they approached, a raven, who sat upon the topmost stone, black against the bright blue sky, flapped lazily away, and sank down the abysses of the cliff, as if he scented the corpses underneath the surge. Below them from the gull-rock rose a thousand birds, and filled the air with sound; the choughs cackled, the hacklets wailed, the great black-backs laughed querulous defiance at the intruders, and a single falcon, with an angry gark, dashed out from beneath their feet, and hung poised aloft, watching the sea fowl which swung slowly round and round below.

It was a glorious sight upon a glorious day. To the northward the glens rush down toward the cliff, crowned with gray

crag, and carpeted with purple heather and green fern; and from their feet stretched away to the westward the sapphire rollers of the vast Atlantic, crowned with a thousand crests of flying foam. On their left hand, some ten miles to the south, stood out against the sky the purple wall of Hartland cliffs, sinking lower and lower, as they trended away to the southward along the lonely iron-bound shores of Cornwall, until they faded, dim and blue, into the blue horizon, forty miles away.

The sky was flecked with clouds, which rushed toward them fast upon the roaring south-west wind; and the warm ocean breeze swept up the cliffs, and whistled through the heather bells, and howled in cranny and in crag,

Till the pillars and clefts of the granite
Rang like a God-swept lyre;

while Amyas, a proud smile upon his lips, stood breasting that genial stream of airy wine with swelling nostrils and fast heaving chest, and seemed to drink in life from every gust.

Charles Kingsley: *Westward Ho!*

THE WEIR AT WHITFORD PRIORS

Launcelot sat and tried to catch perch, but Tregarva's words haunted him. He lighted his cigar, and tried to think earnestly over the matter, but he had got into the wrong place for thinking. All his thoughts, all his sympathies, were drowned in the rush and whirl of the water. He forgot everything else in the mere animal enjoyment of sight and sound. Like many young men at his crisis of life, he had given himself up to the mere contemplation of nature till he had become her slave; and now a luscious scene, a singing bird, were enough to allure his mind away from the most earnest and awful thoughts. He tried to think, but the river would not let him. It thundered and spouted out behind him from the hatches, and leapt madly past him, and caught his eyes in spite of him and swept them away down its dancing waves, and then let them go again only to sweep them

down again and again, till his brain felt a delicious dizziness from the everlasting rush and the everlasting roar. And then below, how it spread, and writhed, and whirled into transparent fans, hissing and twining snakes, polished glass wreaths, huge crystal bells, which boiled up from the bottom, and dived again beneath long threads of creamy foam, and swung round posts and roots, and rushed blackening under dark weed-fringed boughs, and gnawed at the marly banks, and shook the ever restless bulrushes, till it was swept away and down over the white pebbles and olive weeds, in one broad rippling sheet of molten silver, towards the distant sea. Downwards it fled ever, and bore his thoughts floating on its oily stream; and the great trout, with their yellow sides and peacock backs, lunged among the eddies, and the silver grayling dimpled and wandered upon the shallows, and the Mayflies flickered and rustled round him like water fairies, with their green gauzy wings; the coot clanked musically among the reeds; the frogs hummed their ceaseless vesper monotone; the kingfisher darted from his hole in the bank like a blue spark of electric light; the swallow's bills snapped as they twined and hawked above the pool; the swifts' wings whirred like musket balls, as they rushed screaming past his head; and ever the river fled by, bearing his eyes away down the current, till its wild eddies began to glow with crimson beneath the setting sun.

Charles Kingsley: *Yeast*.

THE APPROACH TO HAWORTH PARSONAGE

The town of Keighley never quite melts into country on the road to Haworth, although the houses become more sparse as the traveller journeys upwards to the grey round hills that seem to bound his journey in a westerly direction. First come some villas; just sufficiently retired from the road to show that they can scarcely belong to any one liable to be summoned in a hurry, at the call of suffering or danger, from his comfortable fireside; the lawyer, the doctor, and the

clergyman, live at hand, and hardly in the suburbs, with a screen of shrubs for concealment.

In a town one does not look for vivid colouring; what there may be of this is furnished by the wares in the shops, not by foliage or atmospheric effects; but in the country some brilliancy and vividness seems to be instinctively expected, and there is consequently a slight feeling of disappointment at the grey neutral tint of every object, near or far off, on the way from Keighley to Haworth. The distance is about four miles; and, as I have said, what with villas, great worsted factories, rows of workmen's houses, with here and there an old-fashioned farm-house and outbuildings, it can hardly be called "country" any part of the way. For two miles the road passes over tolerably level ground, distant hills on the left, a "beck" flowing through meadows on the right, and furnishing water power, at certain points, to the factories built on its banks. The air is dim and lightless with the smoke from all these habitations and places of business. The soil in the valley (or "bottom," to use the local term) is rich; but, as the road begins to ascend, the vegetation becomes poorer; it does not flourish, it merely exists; and, instead of trees, there are only bushes and shrubs about the dwellings. Stone dykes are everywhere used in place of hedges; and what crops there are, on the patches of arable land, consist of pale, hungry-looking, grey-green oats. Right before the traveller on this road rises Haworth village; he can see it for two miles before he arrives, for it is situated on the side of a pretty steep hill, with a background of dun and purple moors, rising and sweeping away yet higher than the church, which is built at the very summit of the long narrow street. All round the horizon there is this same line of sinuous wave-like hills; the scoops into which they fall only revealing other hills beyond, of similar colour and shape, crowned with wild, bleak moors—grand, from the ideas of solitude and loneliness which they suggest, or oppressive from the feeling which they give of being pent-up by some monotonous and illimitable barrier, according to the mood of mind in which the spectator may be.

For a short distance the road appears to turn away from

Haworth, as it winds round the base of the shoulder of a hill; but then it crosses a bridge over the "beck," and the ascent through the village begins. The flag-stones with which it is paved are placed end-ways, in order to give a better hold to the horses' feet; and, even with this help, they seem to be in constant danger of slipping backwards. The old stone houses are high compared to the width of the street, which makes an abrupt turn before reaching the more level ground at the head of the village, so that the steep aspect of the place, in one part, is almost like that of a wall. But this surmounted, the church lies a little off the main road on the left; a hundred yards, or so, and the driver relaxes his care, and the horse breathes more easily, as they pass into the quiet little by-street that leads to Haworth Parsonage. The churchyard is on one side of this lane, the school-house and the sexton's dwelling (where the curates formerly lodged) on the other.

The parsonage stands at right angles to the road, facing down upon the church; so that, in fact, parsonage, church, and belfried school-house, form three sides of an irregular oblong, of which the fourth is open to the fields and moors that lie beyond. The area of this oblong is filled up by a crowded churchyard, and a small garden or court in front of the clergyman's house. As the entrance to this from the road is at the side, the path goes round the corner into the little plot of ground. Underneath the windows is a narrow flower-border, carefully tended in days of yore, although only the most hardy plants could be made to grow there. Within the stone wall, which keeps out the surrounding churchyard, are bushes of elder and lilac; the rest of the ground is occupied by a square grass plot and a gravel walk. The house is of grey stone, two stories high, heavily roofed with flags, in order to resist the winds that might strip off a lighter covering. It appears to have been built about a hundred years ago, and to consist of four rooms on each story; the two windows on the right (as the visitor stands, with his back to the church, ready to enter in at the front door) belonging to Mr. Brontë's study, the two on the left to the family sitting-room. Everything about the place

tells of the most dainty order, the most exquisite cleanliness. The door-steps are spotless; the small old-fashioned window-panes glitter like looking-glass. Inside and outside of that house cleanliness goes up into its essence, purity.

The little church lies, as I mentioned, above most of the houses in the village; and the graveyard rises above the church, and is terribly full of upright tombstones.

Mrs. Gaskell: *Life of Charlotte Brontë.*

AT BEACHY HEAD

The waves coming round the promontory before the west wind still give the idea of a flowing stream, as they did in Homer's days. Here beneath the cliff, standing where beach and sand meet, it is still; the wind passes six hundred feet overhead; but yonder, every larger wave rolling before the breeze breaks over the rocks; a white line of spray rushes along them, gleaming in the sunshine; for a moment the dark rockwall disappears, till the spray sinks.

The sea seems higher than the spot where I stand, its surface on a higher level,—raised like a green mound,—as if it could burst it and occupy the space up to the foot of the cliff in a moment. It will not do so, I know; but there is an infinite possibility about the sea; it may do what it is not recorded to have done. It is not to be ordered; it may overleap the bounds human observation has fixed for it. It has a potency unfathomable. There is still something in it not quite grasped and understood, something still to be discovered, a mystery.

So the white spray rushes along the low broken wall of rocks, the sun gleams on the flying fragments of the wave; again it sinks, and the rhythmic motion holds the mind, as an invisible force holds back the tide. A faith of expectancy, a sense that something may drift up from the unknown, a large belief in the unseen resources of the endless space out yonder, soothes the mind with dreamy hope.

The little rules and little experiences—all the petty ways

*John Marchant
9-1911*

*Subj. for document
Mrs. Gaskell*

of narrow life—are shut off behind by the ponderous and impassable cliff; as if we had dwelt in the dim light of a cave, but coming out at last to look at the sun, a great stone had fallen and closed the entrance, so that there was no return to the shadow. The impassable precipice shuts off our former selves of yesterday, forcing us to look out over the sea only, or up to the deeper heaven.

These breadths draw out the soul; we feel that we have wider thoughts than we knew; the soul has been living as it were in a nutshell, all unaware of its own power, and now suddenly finds freedom in the sun and the sky. Straight, as if sawn down from turf to beach, the cliff shuts off the human world, for the sea knows no time and no era; you cannot tell what century it is from the face of the sea. A Roman trireme suddenly rounding the white edge-line of chalk, borne on wind and oar from the Isle of Wight towards the gray castle at Pevensey (already old in olden days), would not seem strange. What wonder could surprise us coming from the wonderful sea?

The little rills winding through the sand have made an islet of a detached rock by the beach; limpets cover it, adhering like rivet-heads. In the stillness here, under the roof of the wind so high above, the sound of the sand draining itself is audible. From the cliff, blocks of chalk have fallen, leaving hollows as when a knot drops from a beam. They lie crushed together at the base, and on the point of this jagged ridge a wheatear perches.

There are ledges three hundred feet above; and from these now and then a jackdaw glides out and returns again to his place, where, when still and with folded wings, he is but a speck of black. A spire of chalk still higher stands out from the wall; but the rains have got behind it, and will cut the crevice deeper and deeper into its foundation. Water too has carried the soil from under the turf at the summit over the verge, forming brown streaks.

Upon the beach lies a piece of timber, part of a wreck; the wood is torn and the fibers rent where it was battered against the dull edge of the rocks. The heat of the sun burns, thrown back by the dazzling chalk; the river of ocean flows

ceaselessly, casting the spray over the stones; the unchanged sky is blue.

Let us go back and mount the steps at the Gap, and rest on the sward there. I feel that I want the presence of grass. The sky is a softer blue, and the sun genial; now the eye and the mind alike are relieved—the one of the strain of too great solitude (not the solitude of the woods), the other of too brilliant and hard a contrast of colors. Touch but the grass, and harmony returns; it is repose after exaltation.

A vessel comes round the promontory. It is not a trireme of old Rome, nor the “fair and stately galley” Count Arnaldus hailed with its seamen singing the mystery of the sea; it is but a brig in ballast, high out of the water, black of hull and dingy of sail; still it is a ship, and there is always an interest about a ship. She is so near, running along but just outside the reef, that the deck is visible. Up rises her stern as the billows come fast and roll under; then her bow lifts, and immediately she rolls, and loosely swaying with the sea, drives along.

The slope of the billow now behind her is white with the bubbles of her passage, rising too from her rudder. Steering athwart with a widening angle from the land, she is laid to clear the distant point of Dungeness. Next a steamer glides forth, unseen till she passed the cliff; and thus each vessel that comes from the westward has the charm of the unexpected. Eastward there is many a sail working slowly into the wind, and as they approach, talking in the language of flags with the watch on the summit of the Head.

The sea-gulls as they settle on the surface ride high out of the water, like the mediaeval caravels, with their sterns almost as tall as the masts. Their unconcerned flight, with crooked wings unbent, as if it were no matter to them whether they flew or floated, in its peculiar jerking motion reminds one of the lapwing; the heron has it too, a little; as if aquatic or water-side birds had a common and distinct action of the wing.

Sometimes a porpoise comes along, but just beyond the

reef; looking down on him from the verge of the cliff, his course can be watched. His dark body, wet and oily, appears on the surface for two seconds; and then, throwing up his tail like the fluke of an anchor, down he goes. Now look forward along the waves some fifty yards or so, and he will come up, the sunshine gleaming on the water as it runs off his back, to again dive, and reappear after a similar interval. Even when the eye can no longer distinguish the form, the spot where he rises is visible, from the slight change in the surface.

The hill receding in hollows leaves a narrow plain between the foot of the sward and the cliff; it is plowed, and the teams come to the footpath which follows the edge; and thus those who plow the sea and those who plow the land look upon each other. The one sees the vessel change her tack, the other notes the plow turning at the end of the furrow. Bramble-bushes project over the dangerous wall of chalk, and grasses fill up the interstices, a hedge suspended in air; but be careful not to reach too far for the blackberries.

The green sea is on the one hand, the yellow stubble on the other. The porpoise dives along beneath, the sheep graze above. Green seaweed lines the reef over which the white spray flies, blue lucerne dots the field. The pebbles of the beach seen from the height mingle in a faint blue tint, as if the distance ground them into colored sand. Leaving the footpath now, and crossing the stubble to "France," as the wide open hollow in the down is called by the shepherds, it is no easy matter in dry summer weather to climb the steep turf to the furze line above.

Dry grass is as slippery as if it were hair, and the sheep have fed it too close for a grip of the hand. Under the furze (still far from the summit) they have worn a path—a narrow ledge, cut by their cloven feet—through the sward. It is time to rest; and already, looking back, the sea has extended to an indefinite horizon. This climb of a few hundred feet opens a view of so many miles more. But the ships lose their individuality and human character; they are so far, so very far away, they do not take hold of the sympathies; they seem like sketches—cunningly executed, but only sketches.

—on the immense canvas of the ocean. There is something unreal about them.

On a calm day, when the surface is smooth as if the brimming ocean had been stroked,—the rod passed across the top of the measure, thrusting off the irregularities of wave; when the distant green from long simmering under the sun becomes pale; when the sky, without cloud, but with some slight haze in it, likewise loses its hue, and the two so commingle in the pallor of heat that they cannot be separated,—then the still ships appear suspended in space. They are as much held from above as upborne from beneath.

They are motionless, midway in space—whether it is sea or air is not to be known. They neither float nor fly, they are suspended. There is no force in the flat sail, the mast is lifeless, the hull without impetus. For hours they linger, changeless as the constellations; still, silent, motionless, phantom vessels on a void sea.

Another climb up from the sheep-path, and it is not far then to the terrible edge of that tremendous cliff which rises straighter than a ship's side out of the sea, six hundred feet above the detached rock below, where the limpets cling like rivet-heads, and the sand rills run around it. But it is not possible to look down to it; the glance of necessity falls outwards, as a raindrop from the eaves is deflected by the wind, because it is the edge where the mold crumbles; the rootlets of the grass are exposed; the chalk is about to break away in flakes.

You cannot lean over as over a parapet, lest such a flake should detach itself; lest a mere trifle should begin to fall, awakening a dread and dormant inclination to slide and finally plunge like it. Stand back; the sea there goes out and out to the left and to the right, and how far is it to the blue overhead? The eye must stay here a long period and drink in these distances, before it can adjust the measure and know exactly what it sees.

Here, reclining on the grass—the verge of the cliff rising a little shuts out the actual sea—the glance goes forth into the hollow unsupported. It is sweeter towards the corn-ricks, and yet the mind will not be satisfied, but ever turns

to the unknown. The edge and abyss recall us; the boundless plain—for it appears solid as the waves are leveled by distance—demands the gaze. But with use it becomes easier, and the eye labors less. There is a promontory standing out from the main wall, whence you can see the side of the cliff, getting a flank view, as from a tower.

The jackdaws occasionally floating out from the ledge are as mere specks from above, as they were from below. The reef running out from the beach, though now covered by the tide, is visible as you look down on it through the water; the seaweed, which lay matted and half dry on the rocks, is now under the wave. Boats have come round, and are beached; how helplessly little they seem beneath the cliff by the sea!

On returning homewards towards Eastbourne, stay awhile by the tumulus on the slope. There are others hidden among the furze; butterflies flutter over them, and the bees hum round by day; by night the nighthawk passes, coming up from the fields and even skirting the sheds and houses below. The rains beat on them, and the storm drives the dead leaves over their low green domes; the waves boom on the shore far down.

How many times has the morning star shone yonder in the east? All the mystery of the sun and of the stars centers around these lowly mounds.

But the glory of these glorious downs is the breeze. The air in the valleys immediately beneath them is pure and pleasant; but the least climb, even a hundred feet, puts you on a plane with the atmosphere itself, uninterrupted by so much as the tree-tops. It is air without admixture. If it comes from the south the waves refine it; if inland, the wheat and flowers and grass distill it. The great headland and the whole rib of the promontory is windswept and washed with air; the billows of the atmosphere roll over it.

The sun searches out every crevice amongst the grass, nor is there the smallest fragment of surface which is not sweetened by air and light. Underneath, the chalk itself is pure, and the turf thus washed by wind and rain, sun-dried and dew-scented, is a couch prepared with thyme to rest on. Dis-

cover some excuse to remain up there always, to search for stray mushrooms—they will be stray, for the crop is gathered extremely early in the morning—or to make a list of flowers and grasses; to do anything, and if not, go always without any pretext. Lands of gold have been found, and lands of spices and precious merchandise; but this is the land of health.

There is the sea below to bathe in, the air of the sky up hither to breathe, the sun to infuse the invisible magnetism of his beams. These are the three potent medicines of nature, and they are medicines that by degrees strengthen not only the body but the unquiet mind. It is not necessary to always look out over the sea. By strolling along the slopes of the ridge a little way inland, there is another scene where hills roll on after hills till the last and largest hides those that succeed behind it.

Vast cloud-shadows darken one, and lift their veil from another; like the sea, their tint varies with the hue of the sky over them. Deep, narrow valleys—lanes in the hills—draw the footsteps downwards into their solitude; but there is always the delicious air, turn whither you will, and there is always the grass, the touch of which refreshes. Though not in sight, it is pleasant to know that the sea is close at hand, and that you have only to mount to the ridge to view it. At sunset the curves of the shore westward are filled with a luminous mist.

Or if it should be calm, and you should like to look at the massive headline from the level of the sea, row out a mile from the beach. Eastwards a bank of red vapor shuts in the sea; the wavelets—no larger than those raised by the oar—on that side are purple as if wine had been spilt upon them, but westwards the ripples shimmer with palest gold.

The sun sinks behind the summit of the downs, and slender streaks of purple are drawn along above them. A shadow comes forth from the cliff; a darkness dwells on the water; something tempts the eye upwards, and near the zenith there is a star.

Richard Jeffries: *Nature Near London.*

EGDON HEATH

A Saturday afternoon in November was approaching the time of twilight, and the vast tract of uninclosed wild known as Egdon Heath embrowned itself moment after moment. Overhead, the hollow stretch of whitish cloud shutting out the sky was as a tent which had the whole heath for its floor.

The heaven being spread with this pallid screen, the earth with the swarthiest of vegetation, their closing line at the horizon was clearly marked. In such contrast the heath wore the appearance of an installment of night, which had taken up its place before its astronomical hour was come; darkness had to a great extent arrived hereon, while day stood distinct in the sky. Looking upward, a furze-cutter would have been inclined to continue work; looking down, he would have decided to finish his fagot and go home. The meeting rims of the world and of the firmament seemed to be a division in time no less than a division in matter. The face of the heath by its mere complexion added half an hour to eve; it could in like manner retard the dawn, sadden noon, anticipate the frowning of storms scarcely generated, and intensify the opacity of a moonless midnight to a cause of shaking and dread.

In fact, precisely at this transitional point of its nightly roll into darkness, the great and particular glory of the Egdon waste began, and nobody could be said to understand the heath, who had not been there at such a time. It could best be felt when it could not clearly be seen. Its completed effect and explanation lay in this and the succeeding hours before the next dawn; then, and only then, did it tell its true tale. The spot was indeed a close relation of night; and when the night was beginning to draw near, a certain tendency to gravitate together could be perceived between its shades and the scene. The somber stretches of round and hollow seemed to rise to meet the evening gloom in pure sympathy; nay, they anticipated its livery, putting on the obscurity of night while the upper night of the sky was still far in the distance. First, the heath exhaled darkness; next, the heavens precipitated it. The obscurity in the

air and the obscurity in the land then close together in a black fraternization toward which each advanced half-way.

The place became full of a watchful intentness now. When other things sank brooding to sleep, the heath appeared slowly to awake and listen. Every night its Titanic form seemed thus to await something. What it awaited none could say. It had waited unmoved during so many centuries, through the crises of so many other things, that it could only be imagined to await one last crisis—the final overthrow.

It was a spot which returned upon the memory of those who loved it with an aspect of peculiar and kindly congruity. Smiling champagnes of flowers and fruit hardly do this, for they are permanently harmonious only with an existence of better reputation than the present. Twilight combined with the scenery of Egdon Heath to evolve a thing majestic without severity, impressive without showiness, emphatic in its admonitions, grand in its simplicity. The qualifications which frequently invest the facade of a prison with far more dignity than is found in the facade of a palace double its size lent to this heath a sublimity in which spots renowned for their attractions were utterly wanting. Gay prospects wed happily with gay times; but, alas, if times be not gay! Men have oftener suffered from the mockery of a place too smiling for their reason than from the oppression of surroundings over-sadly tinged. Haggard Egdon appealed to subtler and scarcer instinct, to a more recently learned emotion, than that which responds to the sort of beauty called charming.

The most thorough-going ascetic could feel that he had a natural right to wander on Egdon; he was keeping within the line of legitimate indulgence when he laid himself open to influences such as these. Colors and beauties so far subdued were at least the birthright of all. Only in summer days of highest feather did its mood touch the level of gayety. Intensity was more usually reached by way of the solemn than by way of the brilliant, and such a sort of intensity was often arrived at during winter darkness, tempests, and mists.

Then Egdon was aroused to reciprocity. The storm was its lover; the wind was its friend. Then it became the lair of strange phantoms; it was found to be the hitherto unrecognized original of those wild regions of obscurity which are vaguely felt to be compassing us about in midnight dreams of flight and disaster, and are never thought of after the dream till revived by scenes like this.

The untamable, Ishmaelitish thing that Egdon now was, it always had been. Civilization was its enemy. Ever since the beginning of vegetation its soil had worn the same antique brown dress—the natural and invariable garment of the formation. In its monotonous costume lay a certain vein of satire on human vanity in clothes. For this reason a person on a heath, in raiment of modern cut and colors, wears more or less an anomalous look. We seem to want the oldest and simplest human clothing where the clothing of the earth is so primitive.

To recline on a stump of thorn in the central valley of Egdon, between afternoon and night, as now, where the eye could reach nothing of the world outside the summits and shoulders of heath-land which filled the whole circumference of its glance, and to know that everything around and underneath had been from prehistoric times as unaltered as the stars overhead, gave ballast to the mind adrift on change, and harassed by the irrepressible New. The great inviolate place had an ancient permanence which the sea cannot claim. Who can say of a particular sea that it is old? Distilled by the sun, kneaded by the moon, it is renewed in a year, in a day, in an hour. The sea changed, the fields changed, the rivers changed, the villages changed, the people changed, yet Egdon remained. Those surfaces were neither so steep as to be destructible by weather, nor so flat as to be the victim of floods and deposits. With the exception of an aged highway, and a still more aged barrow—themselves almost crystallized to cosmic products by long continuance—even the trifling irregularities were not caused by pickaxe, plough, or spade, but remained as the very finger-touches of the last geological change.

Thomas Hardy: *The Return of the Native*.

THE DOWNS

. . . He described the downs fronting the paleness of earliest dawn, and then their arch and curve and dip against the pearly grey of the half-glow; and then, among their hollows, lo, the illumination of the East all around, and up and away, and a gallop for miles along the turfy thymy rolling billows, land to left, sea to right, below you. "It's the nearest hit to wings we can make, Cecilia." . . . Compare you the Alps with them? If you could jump on the back of an eagle, you might. The Alps have height. But the downs have swiftness. Those long stretching lines of the downs are greyhounds in full career. To look at them is to set the blood racing! Speed is on the downs, glorious motion, odorous air of sea and herb, exquisite as in the isles of Greece.

George Meredith: *Beauchamp's Career*.

CAPRI

Among the broken heights to the east or in the two central valleys there are scores of different walks and a hundred different nooks, and each walk and nook has its own independent charm. Steeps clothed from top to bottom in the thick greenery of the lemon or orange; sudden breaks like that of Metromania where a blue strip of sea seems to have been cunningly let in among the rocks; backgrounds of tumbled limestone; slopes dusty gray with wild cactus; thickets of delightful greenery where one lies hidden in the dense scrup of myrtle and arbutus; olive-yards creeping thriftily up the hill-sides and over the cliffs and down every slope and into every rock-corner where the Caprese peasant-farmer can find footing; homesteads of gray stone with low domed Oriental roofs on which women sit spinning, their figures etched out against the sky; gardens where the writhed fig-trees stand barely waiting for the foliage of the spring; nooks amidst broken boulders and vast fingers of rock with the dark mass of the carouba flinging its shade over them; heights from which one looks suddenly northward and southward over a hundred miles of sea—this is Capri. The sea

is everywhere. At one turn its waters go flashing away unbroken by a single sail towards the far-off African coast where the Caprese boatmen are coral-fishing through the hot summer months; at another the eye ranges over the tumbled mountain masses above Amalfi to the dim sweep of coast where the haze hides the temples of Paestum; at another the Bay of Naples opens suddenly before us, Vesuvius and the blue deep of Castellamare and the white city-line along the coast seen with a strange witchery across twenty miles of clear air.

The island is a paradise of silence for those to whom silence is a delight. One wanders about in the vineyards without a sound save the call of the vine-dressers; one lies on the cliff and hears a thousand feet below the dreamy wash of the sea. There is hardly the cry of a bird to break the spell; even the girls who meet one with a smile on the hill-side smile quietly and gravely in the Southern fashion as they pass by. It is the stillest place that the sun shines on; but with all its stillness it is far from being a home of boredom. There are, in fact, few places in the world so full of interest. The artist finds a world of "studies" in its rifts and cliff-walls, in the sailor groups along its beach and the Greek faces of the girls in its vineyards. The geologist reads the secret of the past in its abruptly tilted strata, in a deposit of volcanic ash, in the fossils and bones which Augustus set the fashion of collecting before geology was thought of. The historian and the archaeologist have a yet wider field. Capri is a perfect treasure-house of Roman remains, and though in later remains the island is far poorer, the ruins of mediaeval castles crown the heights of Castiglione and Anacapri, and the mother church of San Costanzo with its central dome supported on marble shafts from the ruins hard by is an early specimen of Sicilian or southern Italian architecture. Perhaps the most remarkable touch of the South is seen in the low stone vaults which form the roofs of all the older houses of Capri, and whose upper surface serves as a terrace where the women gather in the sunshine in a way which brings home to one oddly the recollections of Syria and Jerusalem.

John Richard Green: *Stray Studies*.

BEFORE THE STORM

The night had a sinister aspect. A heated breeze from the south slowly fanned the summits of lofty objects, and in the sky dashes of buoyant cloud were sailing in a course at right angles to that of another stratum, neither of them in the direction of the breeze below. The moon, as seen through these films, had a lurid metallic look. The fields were sallow with the impure light, and all were tinged in monochrome, as if beheld through stained glass. The same evening the sheep had trailed homeward head to tail, the behavior of the rooks had been confused, and the horses had moved with timidity and caution.

Thunder was imminent, and, taking some secondary appearances into consideration, it was likely to be followed by one of the lengthened rains which mark the close of dry weather for the season. Before twelve hours had passed a harvest atmosphere would be a bygone thing.

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Gabriel proceeded towards his home. In approaching the door, his toe kicked something which felt and sounded soft, leathery, and distended, like a boxing-glove. It was a large toad traveling humbly across the path. Oak took it up, thinking it might be better to kill the creature to save it from pain; but finding it uninjured, he placed it again among the grass. He knew what this direct message from the Great Mother meant. And soon came another.

When he struck a light indoors there appeared upon the table a thin glistening streak, as if a brush of varnish had been lightly dragged across it. Oak's eyes followed the serpentine sheen to the other side, where it led to a huge brown garden-slug, which had come indoors to-night for reasons of its own. It was Nature's second way of hinting to him that he was to prepare for foul weather.

Oak sat down meditating for nearly an hour. During this time two black spiders, of the kind common in thatched houses, promenaded the ceiling, ultimately dropping to the floor. This reminded him that if there was one class of

manifestation on this matter that he thoroughly understood, it was the instincts of sheep. He left the room, ran across two or three fields towards the flock, got upon a hedge, and looked over among them.

They were crowded close together on the other side around some furze bushes, and the first peculiarity observable was that, on the sudden appearance of Oak's head over the fence, they did not stir or run away. They had now a terror of something greater than their terror of man. But this was not the most noteworthy feature: they were all grouped in such a way that their tails, without a single exception, were towards that half of the horizon from which the storm threatened. There was an inner circle closely huddled, and outside these they radiated wider apart, the pattern formed by the flock as a whole not being unlike a vandyked lace collar, to which the clump of furze bushes stood in the position of a wearer's neck.

Every voice in nature was unanimous in bespeaking change. But two translations attached to these dumb expressions. Apparently there was to be a thunder storm, and afterwards a cold continuous rain. The creeping things seemed to know all about the later rain, but little of the interpolated thunder-storm; whilst the sheep knew all about the thunder-storm and nothing of the later rain.

Thomas Hardy: *Far From the Madding Crowd*.

THE END OF THE GREAT FROST

The rain came down upon us from the southwest wind, and we could not have enough of it, even putting our tongues to catch it, as little children do, and beginning to talk of prim-roses; the very noblest thing of all was to hear and see the gratitude of the poor beasts yet remaining and the few surviving birds. From the cow-house lowing came more than of fifty milking-times; moo and moo, and a turn-up noise at the end of every bellow, as if from the very heart of kine. Then the horses in the stables, packed as closely as they could stick, at the risk of kicking, to keep the warmth in one

another, and their spirits up by discoursing; these began with one accord to lift up their voices, snorting, snaffling, whinnying, and neighing, and trotting to the door to know when they should have work again. To whom, as if in answer, came the feeble bleating of the sheep, what few, by dint of greatest care, had kept their fleeces on their backs and their four legs under them.

Neither was it a trifling thing, let whoso will say the contrary, to behold the ducks and geese marching forth in handsome order from their beds of fern and straw. What a goodly noise they kept, what a flapping of their wings, and a jerking of their tails, as they stood right up and tried with a whistling in their throats to imitate a cock's crow! And then how daintily they took the wet upon their dusty plumes, and ducked their shoulders to it, and began to dress themselves, and laid their grooved bills on the snow, and dabbled for more oozeiness!

R. D. Blackmore: *Lorna Doone*.

SNOW IN SPRING

That Friday made the last of our fine days for a month. In the evening, the weather broke: the wind shifted from south to north-east, and brought rain first, and then sleet and snow. On the morrow one could hardly imagine that there had been three weeks of summer: The primroses and crocuses were hidden under wintry drifts; the larks were silent, the young leaves of the early trees smitten and blackened. And dreary, and chill, and dismal, that morrow did creep over!

Emily Brontë: *Wuthering Heights*.

THE GUIDE POST

One time I passed the old gate, going out of my way, on a journey to Gimmerton. It was about the period that my narrative has reached: a bright frosty afternoon; the ground bare, and the road hard and dry. I came to a stone where the highway branches off on to the moor at your left hand;

a rough sand-pillar, with the letters W. H. cut on its north side, on the east, G., and on the south-west, T. G. It serves as a guide-post to the Grange, the Heights, and village. The sun shone yellow on its grey head, reminding me of summer; and I cannot say why, but all at once, a gush of child's sensations flowed into my heart. I gazed long at the weather-worn block, and, stooping down, perceived a hole near the bottom still full of snail-shells and pebbles, which we were fond of storing there with more perishable things; and, as fresh as reality, it appeared that I beheld my early playmate seated on the withered turf, his dark, square head bent forward, and his little hand scooping out the earth with a piece of slate.

Emily Brontë: *Wuthering Heights*.

SPRING

Spring, while we are writing, is complete. The winds have done their work. The shaken air, well tempered and equalized, has subsided; the genial rains, however thickly they may come, do not saturate the ground beyond the power of the sun to dry it up again. There are clear crystal mornings; noons of blue sky and white cloud; nights, in which the growing moon seems to lie looking at the stars, like a young shepherdess at her flock. A few nights ago she lay gazing in this manner at the solitary evening star, like Diana, on the slope of a valley, looking up at Endymion. His young eye seemed to sparkle out upon the world; while she, bending inwards, her hands behind her head, watched him with an enamored dumbness.

But this is the quiet of Spring. Its voices and swift movements have come back also. The swallow shoots by us, like an embodied ardor of the season. The glowing bee has his will of the honied flowers, grappling with them as they tremble. We have not yet heard the nightingale or the cuckoo; but we can hear them with our imagination, and enjoy them through the content of those who have.

Then the young green. This is the most apt and perfect

mark of the season—the true issuing forth of the Spring. The trees and bushes are putting forth their crisp fans; the lilac is loaded with bud; the meadows are thick with the bright young grass, running into sweeps of white and gold with the daisies and butter-cups. The orchards announce their riches, in a shower of silver blossoms. The earth in fertile woods is spread with yellow and blue carpets of primroses, violets, and hyacinths, over which the birch-trees, like stooping nymphs, hang with their thickening hair. Lilies-of-the-valley, stocks, columbines, lady-smocks, and the intensely red peony which seems to anticipate the full glow of summertime, all come out to wait upon the season, like fairies from their subterraneous palaces.

Leigh Hunt: "Spring and Daisies," in *Essays*.

A HOT DAY

Now the rosy (and lazy) fingered Aurora, issuing from her saffron house, calls up the moist vapors to surround her, and goes veiled with them as long as she can; till Phoebus, coming forth in his power, looks everything out of the sky, and holds sharp, uninterrupted empire from his throne of beams. Now the mower begins to make his sweeping cuts more slowly, and resorts oftener to the beer. Now the carter sleeps a-top of his load of hay, or plods with double slouch of shoulder, looking out with eyes winking under his shading hat, and with a hitch upward of one side of his mouth. Now the little girl at her grandmother's cottage door watches the coaches that go by, with her hand held up over her sunny forehead. Now laborers look well resting in their white shirts at the doors of rural ale-houses. Now an elm is fine there, with a seat under it; and horses drink out of the trough, stretching their yearning necks with loosened collars; and the traveller calls for his glass of ale, having been without one for more than ten minutes; and his horse stands wincing at the flies, giving sharp shivers of his skin, and moving to and fro his ineffectual docked tail; and now Miss Betty

Wilson, the host's daughter, comes streaming forth in a flowered gown and ear-rings carrying with four of her beautiful fingers the foaming glass, for which she receives with an indifferent eye, looking another way, the lawful twopence. Now grasshoppers "fry," as Dryden says. Now cattle stand in water, and ducks are envied. Now boots, and shoes, and trees by the roadside, are thick with dust; and dogs, rolling in it, after issuing out of the water, into which they have been thrown to fetch sticks, come scattering horror among the legs of the spectators. Now a fellow who finds he has three miles further to go in a pair of tight shoes is in a pretty situation. Now rooms with the sun upon them become intolerable; and the apothecary's apprentice, with a bitterness beyond aloes, thinks of the pond he used to bathe in at school. Now boys assemble round the village pump with a ladle to it, and delight to make a forbidden splash and get wet through the shoes. Now also they make suckers of leather, and bathe all day long in rivers and ponds, and make mighty fishings for "tittle-bats." Now the bee, as he hums along, seems to be talking heavily of the heat. Now doors and brick-walls are burning to the hand! and a walled lane, with dust and broken bottles in it, near a brick-field, is a thing not to be thought of. Now a green lane, on the contrary, thick-set with hedgerow elms, and having the noise of a brook "rumbling in pebble-stone," is one of the pleasantest things in the world.

Leigh Hunt: "A 'Now,' Descriptive of a Hot Day," in *Essays*.

DEFACEMENT

Twenty years ago, there was no lovelier piece of lowland scenery in South England, nor any more pathetic in the world, by its expression of sweet human character and life, than that immediately bordering on the sources of the Wandle, and including the lower moors of Addington, and the villages of Beddington and Carshalton, with all their pools and streams. No clearer or diviner waters ever sang with con-

stant lips of the hand which "giveth rain from heaven;" no pastures ever lightened in springtime with more passionate blossoming; no sweeter homes ever hallowed the heart of the passer-by with their pride of peaceful gladness—fain-hidden—yet full-confessed. The place remains, or, until a few months ago, remained, nearly unchanged in its larger features; but, with deliberate mind I say, that I have never seen anything so ghastly in its inner tragic meaning,—not in Pisan Mar-emma,—not by Campagna tomb,—not by the sand-isles of the Torcellan shore,—as the slow stealing of aspects of reckless, indolent animal neglect, over the delicate sweetness of that English scene: nor is any blasphemy or impiety—any frantic saying or godless thought—more appalling to me, using the best power of judgment I have to discern its sense and scope, than the insolent defilings of those springs by the human herds that drink of them. Just where the welling of stainless water, trembling and pure, like a body of light, enters the pool of Carshalton, cutting itself a radiant channel down to the gravel, through warp of feathery weeds, all waving, which it traverses with its deep threads of clearness, like the chalcedony in moss-agate, starred here and there with white grenouillette; just in the very rush and murmur of the first spreading currents, the human wretches of the place cast their street and house foulness; heaps of dust and slime, and broken shreds of old metal, and rags of putrid clothes; they having neither energy to cart it away, nor decency enough to dig it into the ground, thus shed into the stream, to diffuse what venom of it will float and melt, far away, in all places where God meant those waters to bring joy and health. And, in a little pool, behind some houses farther in the village, where another spring rises, the shattered stones of the well, and of the little fretted channel which was long ago built and traced for it by gentler hands, lie scattered, each from each, under a ragged bank of mortar, and scoria, and bricklayers' refuse, on one side, which the clean water nevertheless chastises to purity; but it cannot conquer the dead earth beyond; and there, circled and coiled under festering scum, the stagnant edge of the pool effaces itself into a slope of black slime, the accumulation of indolent years. Half a dozen men,

with one day's work, could cleanse those pools, and trim the flowers about their banks, and make every breath of summer air above them rich with cool balm; and every glittering wave medicinal, as if it ran, troubled of angels, from the porch of Bethesda. But that day's work is never given, nor will be; nor will any joy be possible to heart of man, for evermore, about those wells of English waters.

John Ruskin: Preface to *The Crown of Wild Olive*.

THE ROMAN CAMPAGNA

Perhaps there is no more impressive scene on earth than the solitary extent of the Campagna of Rome under evening light. Let the reader imagine himself for the moment withdrawn from the sounds and motion of the living world, and sent forth alone into this wild and wasted plain. The earth yields and crumbles beneath his foot, tread he never so lightly, for its substance is white, hollow, and carious, like the dusty wreck of the bones of men. The long knotted grass waves and tosses feebly in the evening wind, and the shadows of its motion shake feverishly along the banks of ruin that lift themselves to the sunlight. Hillocks of mouldering earth heave around him, as if the dead beneath were struggling in their sleep. Scattered blocks of black stone, four-square remnants of mighty edifices, not one left upon another, lie upon them to keep them down. A dull purple poisonous haze stretches level along the desert, veiling its spectral wrecks of massy ruins, on whose rents the red light rests, like dying fire on defiled altars; the blue ridge of the Alban Mount lifts itself against a solemn space of green, clear, quiet sky. Watch-towers of dark clouds stand steadfastly along the promontories of the Apennines. From the plain to the mountains, the shattered aqueducts, pier beyond pier, melt into the darkness, like shadowy and countless troops of funeral mourners, passing from a nation's grave.

John Ruskin: Preface to the second edition of *Modern Painters*.

NATURE AWAKING

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May 16-19

Night is a dead monotonous period under a roof; but in the open world it passes lightly, with its stars and dews and perfumes, and the hours are marked by changes in the face of Nature. What seems a kind of temporal death to people choked between walls and curtains, is only a light and living slumber to the man who sleeps afieid. All night long he can hear Nature breathing deeply and freely; even as she takes her rest, she turns and smiles; and there is one stirring hour unknown to those who dwell in houses, when a wakeful influence goes abroad over the sleeping hemisphere, and all the outdoor world are on their feet. It is then that the cock first crows, not this time to announce the dawn, but like a cheerful watchman speeding the course of night. Cattle awake on the meadows; sheep break their fast on dewy hill-sides, and change to a new lair among the ferns; and houseless men, who have lain down with the fowls, open their dim eyes and behold the beauty of the night.

At what inaudible summons, at what gentle touch of Nature, are all these sleepers thus recalled in the same hour to life? Do the stars rain down an influence, or do we share some thrill of mother earth below our resting bodies? Even shepherds and old country-folk, who are the deepest read in these arcana, have not a guess as to the means or purpose of this nightly resurrection. Towards two in the morning they declared the thing takes place; and neither know nor inquire further. And at least it is a pleasant incident. We are disturbed in our slumber, only like the luxurious Montaigne, "that we may the better and more sensible relish it." We have a moment to look up on the stars. And there is a special pleasure for some minds in the reflection that we share the impulse with all outdoor creatures in our neighborhood, that we have escaped out of the Bastille of civilization, and are become, for the time being, a mere kindly animal and a sheep of Nature's flock.

When that hour came to me among the pines, I wakened thirsty. My tin was standing by me half full of water. I emptied it at a draught; and feeling broad awake after this internal cold aspersion, sat upright to make a cigarette. The

stars were clear, coloured, jewel-like, but not frosty. A faint silvery vapor stood for the Milky Way. All around me the black fir-points stood upright and stock-still. By the whiteness of the pack-saddle, I could see Modestine walking round and round at the length of her tether; I could hear her steadily munching at the sward; but there was not another sound, save the indescribable quiet talk of the runnel over the stones. I lay lazily smoking and studying the color of the sky, as we call the void of space, from where it showed a reddish gray behind the pines to where it showed a glossy blue black between the stars. As if to be more like a pedler, I wear a silver ring. This I could see faintly shining as I raised or lowered the cigarette; and at each whiff the inside of my hand was illuminated and became for a second the highest light in the landscape.

A faint wind, more like a moving coldness than a stream of air, passed down the glade from time to time; so that even in my great chamber the air was being renewed all night long. I thought with horror of the inn at Chasserades and the congregated nightcaps; with horror of the nocturnal prowesses of clerks and students, of hot theatres and pass-keys and close rooms. I have not often enjoyed a more serene possession of myself, nor felt more independent of material aids. The outer world, from which we cower into our houses, seemed after all a gentle habitable place; and night after night a man's bed, it seemed, was laid and waiting for him in the fields, where God keeps an open house. I thought I had rediscovered one of those truths which are revealed to savages and hid from political economists: at the least I had discovered a new pleasure for myself.

Robert Louis Stevenson: *Travels with a Donkey.* (Charles Scribner's Sons.)

A STAGE SETTING

A fine October morning in the north east suburbs of London, a vast district many miles away from the London of Mayfair and St. James's, much less known there than the Paris of the Rue de Rivoli and the Champs Elysees, and much less

narrow, squalid, fetid and airless in its slums; strong in comfortable, prosperous middle class life; wide streeted; myriad-populated; well-served with Radical clubs, tram lines, and a perpetual stream of yellow cars; enjoying in its main thoroughfares the luxury of grass-grown "front gardens," untrodden by the foot of man save as to the path from the gate to the hall door; but blighted by an intolerable monotony of miles and miles of graceless, characterless brick houses, black iron railings, stony pavements, slaty roofs, and respectably ill dressed or disreputably poorly dressed people, quite accustomed to the place, and mostly plodding about somebody else's work, which they would not do if they themselves could help it. The little energy and eagerness that crop up show themselves in cockney cupidity and business "push." Even the policemen and the chapels are not infrequent enough to break the monotony. The sun is shining cheerfully; there is no fog; and though the smoke effectually prevents anything, whether faces and hands or bricks and mortar, from looking fresh and clean, it is not hanging heavily enough to trouble a Londoner.

This desert of unattractiveness has its oasis. Near the outer end of the Hackney Road is a park of 217 acres, fenced in, not by railings, but by a wooden paling, and containing plenty of greensward, trees, a lake for bathers, flower beds with the flowers arranged carefully in patterns by the admired cockney art of carpet gardening and a sandpit, imported from the seaside for the delight of the children, but speedily deserted on its becoming a natural vermin preserve for all the petty fauna of Kingsland, Hackney, and Hoxton. A bandstand, an unfinished forum for religious, anti-religious, and political orators, cricket pitches, a gymnasium, and an old fashioned stone kiosk are among its attractions. Wherever the prospect is bounded by trees or rising green grounds, it is a pleasant place. Where the ground stretches flat to the gray palings, with bricks and mortar, sky signs, crowded chimneys and smoke beyond, the prospect makes it desolate and sordid.

The best view of Victoria Park is from the front window of St. Dominic's Parsonage, from which not a single chimney

is visible. The parsonage is a semi-detached villa with a front garden and a porch. Visitors go up the flight of steps to the porch: tradespeople and members of the family go down by a door under the steps to the basement, with a breakfast room, used for all meals, in front, and the kitchen at the back. Upstairs, on the level of the hall door, is the drawing-room, with its large plate glass window looking on the park. In this room, the only sitting-room that can be spared from the children and the family meals, the parson, the Reverend James Mavor Morell does his work. He is sitting in a strong round backed revolving chair at the right hand end of a long table, which stands across the window, so that he can cheer himself with the view of the park at his elbow. At the opposite end of the table, adjoining it, is a little table only half the width of the other, with a typewriter on it. His typist is sitting at this machine, with her back to the window. The large table is littered with pamphlets, journals, letters, nests of drawers, an office diary, postage scales and the like. A spare chair for visitors having business with the parson is in the middle, turned to his end. Within reach of his hand is a stationery case, and a cabinet photograph in a frame. Behind him the right hand wall, recessed above the fireplace, is fitted with bookshelves, on which an adept eye can measure the parson's divinity and casuistry by a complete set of Browning's poems and Maurice's Theological Essays, and guess at his politics from a yellow backed Progress and Poverty, Fabian Essays, a Dream of John Ball, Marx's Capital, and half a dozen other literary landmarks in Socialism. Opposite him on the left, near the typewriter, is the door. Further down the room, opposite the fireplace, a bookcase stands on a cellaret, with a sofa near it. There is a generous fire burning; and the hearth, with a comfortable armchair and a Japanned flower painted coal scuttle at one side, a miniature chair for a boy or girl on the other, a nicely varnished wooden mantelpiece, with neatly moulded shelves, tiny bits of mirror let into the panels, and a travelling clock in a leather case (the inevitable wedding present), and on the wall above a large autotype of the chief figure in Titian's Virgin of the Assumption, is very inviting. Altogether the

room is the room of a good housekeeper, vanquished, as far as the table is concerned, by an untidy man, but elsewhere mistress of the situation. The furniture, in its ornamental aspect, betrays the style of the advertised "drawing-room suite" of the pushing suburban furniture dealer; but there is nothing useless or pretentious in the room. The paper and panelling are dark, throwing the big cheery window and the park outside into strong relief.

The Reverend James Mavor Morell is a Christian Socialist clergyman of the Church of England, and an active member of the Guild of St. Matthew and the Christian Social Union. A vigorous, genial, popular man of forty, robust and good-looking, full of energy, with pleasant, hearty, considerate manners, and a sound, unaffected voice, which he uses with the clean, athletic articulation of a practiced orator, and with a wide range and perfect command of expression. He is a first rate clergyman, able to say what he likes to whom he likes, to lecture people without setting himself up against them, to impose his authority on them without humiliating them, and to interfere in their business without impertinence. His well spring of spiritual enthusiasm and sympathetic emotion has never run dry for a moment: he still eats and sleeps heartily enough to win the daily battle between exhaustion and recuperation triumphantly. Withal, a great baby, pardonably fain of his powers and unconsciously pleased with himself. He has a healthy complexion, a good forehead, with the brows somewhat blunt, and the eyes bright and eager, a mouth resolute, but not particularly well cut, and a substantial nose, with the mobile, spreading nostrils of the dramatic orator, but, like all his features, void of subtlety.

The typist, Miss Proserpine Garnett, is a brisk little woman of about 30, of the lower middle class, neatly but cheaply dressed in a black merino skirt and a blouse, rather pert and quick of speech, and not very civil in her manner, but sensitive and affectionate. She is clattering away busily at her machine while Morell opens the last of his morning's letters. He realizes its contents with a comic groan of despair.

George Bernard Shaw: *Candida*. (Copyright, 1905, by Brentano's.)

BY OLD WHARVES

My earliest remembrances are of a long range of old, half-dilapidated stores; red brick stores with steep wooden roofs, and stone window frames and door frames, which stood upon docks built as if for immense trade with all quarters of the globe.

Generally there were only a few sloops moored to the tremendous posts, which I fancied could easily hold fast a Spanish Armada in a tropical hurricane. But sometimes a great ship, an East Indiaman, with rusty, seamed, blistered sides, and dingy sails, came slowly moving up the harbor, with an air of indolent self-importance and consciousness of superiority, which inspired me with profound respect. If the ship had ever chanced to run down a rowboat, or a sloop, or any specimen of smaller craft, I should only have wondered at the temerity of any floating thing in crossing the path of such supreme majesty. The ship was leisurely chained and cabled to the old dock, and then came the disemboweling.

How the stately monster had been fattening upon foreign spoils! How it had gorged itself (such galleons did never seem to me of the feminine gender) with the luscious treasures of the tropics! It had lain its lazy length along the shores of China, and sucked in whole flowery harvests of tea. The Brazilian sun flashed through the strong wicker prisons, bursting with bananas and nectarean fruits that eschew the temperate zone. Steams of camphor, of sandal wood, arose from the hold. Sailors chanting cabalistic strains, that had to my ears a shrill and monotonous pathos, like the uniform rising and falling of an autumn wind, turned cranks that lifted the bales, and boxes, and crates, and swung them ashore.

But to my mind, the spell of their singing raised the fragrant freight, and not the crank. Madagascar and Ceylon appeared at the mystic bidding of the song. The placid sunshine of the docks was perfumed with India. The universal calm of southern seas poured from the bosom of the ship over the quiet, decaying old northern port.

Long after the confusion of unloading was over, and the

ship lay as if all voyages were ended, I dared to creep timorously along the edge of the dock, and at great risk of falling in the black water of its huge shadow, I placed my hand upon the hot hulk, and so established a mystic and exquisite connection with Pacific islands, with palm groves and all the passionate beauties they embower; with jungles, Bengal tigers, pepper, and the crushed feet of Chinese fairies. I touched Asia, the Cape of Good Hope, and the Happy Islands. I would not believe that the heat I felt was of our northern sun; to my finer sympathy it burned with equatorial fervors.

The freight was piled in the old stores. I believe that many of them remain, but they have lost their character. When I knew them, not only was I younger, but partial decay had overtaken the town; at least the bulk of its India trade had shifted to New York and Boston. But the appliances remained. There was no throng of busy traffickers, and after school, in the afternoon, I strolled by and gazed into the solemn interiors.

Silence reigned within—silence, dimness, and piles of foreign treasure. Vast coils of cable, like tame boa-constrictors, served as seats for men with large stomachs and heavy watch seals, and nankeen trousers, who sat looking out of the door toward the ships, with little other sign of life than an occasional low talking, as if in their sleep. Huge hogshheads perspiring brown sugar and oozing slow molasses, as if nothing tropical could keep within bounds, but must continually expand, and exude, and overflow, stood against the walls, and had an architectural significance, for they darkly reminded me of Egyptian prints, and in the duskiness of the low-vaulted store seemed cyclopean columns incomplete. Strange festoons and heaps of bags, square piles of square boxes cased in mats, bales of airy summer stuffs, which, even in winter, scoffed at cold, and shamed it by audacious assumption of eternal sun; little specimen boxes of precious dyes that even now shine through my memory, like old Venetian schools unpainted—these were all there in rich confusion.

The stores had a twilight of dimness, the air was spicy with mingled odors. I liked to look suddenly in from the glare of sunlight outside, and then the cool sweet dimness

was like the palpable breath of the far-off island groves; and if only some parrot or macaw hung within, would flaunt with glistening plumage in his cage, and as the gay hue flashed in a chance sunbeam, call in his hard, shrill voice, as if thrusting sharp sounds upon a glistening wire from out that grateful gloom, then the enchantment was complete, and without moving, I was circumnavigating the globe.

George William Curtis: *Prue and I*.

A SHIP AT SEA

One night, while we were in these tropics, I went out to the end of the flying jib-boom upon some duty, and having finished it turned round and lay over the boom for a long time, admiring the beauty of the sight before me. Being so far out from the deck I could look at the ship as at a separate vessel, and there rose up from the water, supported only by the small black hull, a pyramid of canvas, spreading out far beyond the hull, and towering up almost, as it seemed in the indistinct night air, to the clouds. The sea was as still as an inland lake; the light trade-wind was gently and steadily breathing from astern; there was no sound but the rippling of the water under the stem; and the sails were spread out wide and high—the two lower studding-sails stretching, on each side, far beyond the deck; the top-mast studding-sails, like wings to the top-sails; the topgallant studding-sails spreading fearlessly out above them; still higher, the two royal studding-sails, looking like two kites flying from the same string; and, highest of all, the little skysail, the apex of the pyramid, seeming actually to touch the stars and to be out of reach of human hand. Not a ripple upon the surface of the canvas, not even a quivering of the extreme edges of the sail, so perfectly were they distended by the breeze.

R. H. Dana: *Two Years Before the Mast*.

A FARM HOUSE

Evidently that gate is never opened: for the long grass and the great hemlocks grow close against it; and if it were opened, it is so rusty, that the force necessary to turn it on

its hinges would be likely to pull down the square stone-built pillars, to the detriment of the two stone lionesses which grin with a carnivorous affability above a coat of arms surmounting each of the pillars. It would be easy enough, by the aid of the nicks in the stone pillars, to climb over the brick wall with its smooth stone coping; but by putting our eyes close to the rusty bars of the gate, we can see the house well enough, and all but the very corners of the grassy enclosure.

It is a very fine old place, of red brick, softened by a pale powdery lichen, which has dispersed itself with a happy irregularity, so as to bring the red brick into terms of friendly companionship with the limestone ornaments surrounding the three gables, the windows, and the door-place. But the windows are patched with wooden panes, and the door, I think, is like the gate—it is never opened: how it would groan and grate against the stone floor if it were! For it is a solid, heavy, handsome door, and must once have been in the habit of shutting with a sonorous bang behind a liveried lackey, who had just seen his master and mistress off the grounds in a carriage and pair.

But at present one might fancy the house in the early stage of a chancery suit, and that the fruit from that grand double row of walnut trees on the right hand of the enclosure would fall and rot among the grass, if it were not that we heard the booming bark of dogs echoing from great buildings at the back. And now the half-weaned calves that have been sheltering themselves in a gorse-built hovel against the left-hand wall, come out and set up a silly answer to that terrible bark, doubtless supposing that it has reference to buckets of milk.

Yes, the house must be inhabited, and we will see by whom; for imagination is a licensed trespasser; it has no fear of dogs, but may climb over walls and peep in at windows with impunity. Put your face to one of the glass panes in the right-hand window; what do you see? A large open fireplace, with rusty dogs in it, and a bare-boarded floor, at the far end, fleeces of wool stacked up; in the middle of the floor, some empty corn-bags. That is the furniture of the

dining-room. And what through the left-hand window? Several clothes-horses, a pillion, a spinning-wheel, and an old box wide open, and stuffed full of coloured rags. At the edge of this box there lies a great wooden doll, which, so far as mutilation is concerned, bears a strong resemblance to the finest Greek sculpture, and especially in the total loss of its nose. Near it there is a little chair, and the butt-end of a boy's leather long-lashed whip.

The history of the house is plain now. It was once the residence of a country squire, whose family, probably dwindling down to mere spinsterhood, got merged in the more territorial name of Donnithorne. It was once the Hall; it is now the Hall Farm. Like the life in some coast town that was once a watering-place, and is now a port, where the genteel streets are silent and grass-grown, and the docks and warehouses busy and resonant, the life at the Hall has changed its focus, and no longer radiates from the parlour, but from the kitchen and the farm-yard.

Plenty of life there! though this is the drowsiest time of the year, just before the hay-harvest; and it is the drowsiest time of the day too, for it is close upon three by the sun, and it is half-past three by Mrs. Poyser's handsome eight-day clock. But there is always a stronger sense of life when the sun is brilliant after rain; and now he is pouring down his beams, and making sparks among the wet straw, and lighting up every patch of vivid green moss on the red tiles of the cow-shed, and turning even the muddy water that is hurrying along the channel to the drain into a mirror for the yellow-billed ducks, who are seizing the opportunity of getting a drink with as much body in it as possible. There is quite a concert of noises: the great bull-dog, chained against the stables, is thrown into furious exasperation by the unwary approach of a cock too near the mouth of his kennel, and sends forth a thundering bark, which is answered by two fox-hounds shut up in the opposite cow-house; the old top-knotted hens, scratching with their chicks among the straw, set up a sympathetic croaking as the discomfited cock joins them; a sow with her brood, all very muddy as to the legs, and curled as to the tail, throws in some deep staccato notes;

our friends the calves are bleating from the same home croft; and under all, a fine ear discerns the continuous hum of human voices.

For the great barn-doors are thrown wide open, and men are busy there mending the harness, under the superintendence of Mr. Goby, the "whittaw", otherwise saddler, who entertains them with the latest Treddleston gossip. It is certainly rather an unfortunate day that Alick, the shepherd, has chosen for having the whittaws, since the morning turned out so wet; and Mrs. Poyser had spoken her mind pretty strongly as to the dirt which the extra number of men's shoes brought into the house at dinner-time. Indeed she has not yet recovered her equanimity on the subject, though it is now nearly three hours since dinner, and the house floor is perfectly clean again; as clean as everything else in that wonderful house-place, where the only chance of collecting a few grains of dust would be to climb on the salt-coffer, and put your finger on the high mantel-shelf on which the glittering brass candlesticks are enjoying their summer sinecure; for at this time of year, of course, every one goes to bed while it is yet light, or at least light enough to discern the outline of objects after you have bruised your shins against them. Surely nowhere else could an oak clock-case and an oak table have got such a polish by the hand: genuine "elbow polish", as Mrs. Poyser called it, for she thanked God she never had any of your varnished rubbish in her house. Hetty Sorrel often took the opportunity, when her aunt's back was turned, of looking at the pleasant reflection of herself in those polished surfaces, for the oak table was usually turned up like a screen, and was more for ornament than for use; and she could see herself sometimes in the great round pewter dishes that were ranged on the shelves above the long deal dinner table, or in the hobs of the grate, which always shone like jasper.

George Eliot: *Adam Bede*.

A SUITE OF APARTMENTS AT CUMNOR HALL

From this antechamber opened a banquet-room of moderate size, but brilliant enough to dazzle the eyes of the spectator with the richness of its furniture. The walls lately so bare

and ghastly, were now clothed with hangings of sky-blue velvet and silver; the chairs were of ebony, richly carved, with cushions corresponding to the hangings; and the place of the silver sconces which enlightened the antechamber was supplied by a huge chandelier, of the same precious metal. The floor was covered with a Spanish foot-cloth, or carpet, on which flowers and fruits were represented in such glowing and natural colors, that you hesitated to place the foot on such exquisite workmanship. The table of old English oak stood ready covered with the finest linen; and a large, portable court cupboard was placed, with the leaves of its embossed folding-doors displayed, showing the shelves within, decorated with a full display of plate and porcelain. In the midst of the table stood a salt-cellar of Italian workmanship,—a beautiful and splendid piece of plate, about two feet high, moulded into a representation of the giant Briareus, whose hundred hands of silver presented to the guest various sorts of spices, or condiments, to season their food withal.

The third apartment was called the withdrawing-room. It was hung with the finest tapestry, representing the fall of Phaeton, for the looms of Flanders were now much occupied on classical subjects. The principal seat of this apartment was a chair of state, raised a step or two from the floor, and large enough to contain two persons. It was surmounted by a canopy, which, as well as the cushions, side-curtains, and the very foot-cloth, were composed of crimson velvet embroidered with seed-pearl. On the top of the canopy were two coronets, resembling those of an earl and countess. Stools covered with velvet, and some cushions disposed in the Moorish fashion, and ornamented with Arabesque needlework, supplied the place of chairs in this apartment, which contained musical instruments, embroidery frames, and other articles for ladies' pastime. Besides lesser lights, the withdrawing-room was illuminated by four tall torches of virgin wax, each of which was placed in the grasp of a statue, representing an armed Moor, who held in his left arm a round buckler of silver, highly polished, interposed betwixt his breast and the light, which was thus brilliantly reflected as from a crystal mirror.

The sleeping chamber belonging to this splendid suite of

apartments was decorated in a taste less showy, but not less rich, than had been displayed in the others. Two silver lamps, fed with perfumed oil, diffused at once a delicious odor and a trembling, twilight-seeming shimmer through the quiet apartment. It was carpeted so thick that the heaviest step could not have been heard; and the bed, richly heaped with down, was spread with an ample coverlet of silk and gold; from under which peeped forth cambric sheets, and blankets as white as the lambs which yielded the fleece that made them. The curtains were of blue velvet, lined with crimson silk, deeply festooned with gold, and embroidered with the loves of Cupid and Psyche. On the toilet was a beautiful Venetian mirror, in a frame of silver filigree, and beside it stood a gold posset-dish to contain the night draught. A pair of pistols and a dagger mounted with gold were displayed near the head of the bed, being the arms for the night, which were presented to honored guests, rather, it may be supposed, in the way of ceremony than from any apprehension of danger. We must not omit to mention, what was more to the credit of the manners of that time, that, in a small recess, illuminated by a taper, were disposed two hassocks of velvet and gold, corresponding with the bed furniture, before a desk of carved ebony. This recess had formerly been the private oratory of the abbot; but the crucifix was removed, and instead there were placed on the desk two Books of Common Prayer richly bound and embossed with silver. With this enviable sleeping apartment, which was so far removed from every sound, save that of the wind sighing among the oaks of the park, that Morpheus might have coveted it for his own proper repose, corresponded two wardrobes, or dressing-rooms as they are now termed, suitably furnished, and in a style of the same magnificence which we have already described.

Sir Walter Scott: *Kenilworth*.

THE OLD TOWER OF CALAIS CHURCH

The large neglect, the noble unsightliness of it; the record of its years written so visibly, yet without sign of weakness or decay; its stern wasteness and gloom, eaten away by the

Channel winds, and overgrown with the bitter sea grasses; its slates and tiles all shaken and rent, and yet not falling; its desert of brickwork, full of bolts, and holes, and ugly fissures, and yet strong, like a bare brown rock; its carelessness of what any one thinks or feels about it; putting forth no claim, having no beauty, nor desirableness, pride, nor grace; yet neither asking for pity; not, as ruins are, useless and piteous, feebly or fondly garrulous of better days; but useful still, going through its own daily work,—as some old fisherman, beaten grey by storm, yet drawing his daily nets: so it stands, with no complaint about its past youth, in blanched and meagre massiveness and serviceableness, gathering human souls together underneath it; the sound of its bells for prayer still rolling through its rents; and the grey peak of it seen far across the sea, principal of the three that rise above the waste of surgy sand and hillocked shore,—the light-house for life, and the belfry for labor, and this—for patience and praise.

John Ruskin: *Modern Painters.*

NIGHT VIEW OF THE CITY

(Described by Teufelsdröckh as he sits in his watchtower.)

“*Ach, mein Lieber!*” said he once, at midnight, when we had returned from the Coffee-house in rather earnest talk, “it is a true sublimity to dwell here. These fringes of lamplight, struggling up through smoke and thousand-fold exhalation, some fathoms into the ancient region of Night, what thinks Boötes of them, as he leads his Hunting-dogs over the Zenith in their leash of sidereal fire? That stifled hum of midnight, when Traffic has lain down to rest; and the chariot-wheels of Vanity, still rolling here and there through distant streets, are bearing her to Halls roofed in, and lighted to the due pitch for her; and only Vice and Misery, to prowl or to moan like night-birds, are abroad; that hum, I say, like the stertorous, unquiet slumber of sick life, is heard in Heaven! Oh! under that hideous coverlet of vapors, and putrefactions, and unimaginable gases, what a Fermenting-vat lies simmering and hid! The joyful and the

sorrowful are there; men are dying there, men are being born; men are praying,—on the other side of a brick partition, men are cursing; and around them all is the vast, void Night. The proud Grandee still lingers in his perfumed saloons, or reposes within damask curtains; Wretchedness cowers into truckle-beds, or shivers hunger-stricken into its lair of straw; in obscure cellars, *Rouge-et-Noir* languidly emits its voice-of-destiny to haggard hungry villains; while Councillors of State sit plotting and playing their high chess-game whereof the pawns are Men. The Lover whispers his mistress that the coach is ready; and she, full of hope and fear, glides down, to fly with him over the borders: The Thief, still more silently, sets-to his pick-locks and crow-bars, or lurks in wait till the watchmen first snore in their boxes. Gay mansions, with supper-rooms and dancing-rooms, are full of light and music and high-swelling hearts; but, in the condemned cells, the pulse of life beats tremulous and faint, and bloodshot eyes look out through the darkness, which is around and within, for the light of a stern last morning. Upwards of five-hundred-thousand two-legged animals without feathers lie round us, in horizontal positions; their heads all in nightcaps, and full of the foolishlest dreams. Riot cries aloud, and staggers and swaggers in his rank dens of shame; and the Mother, with streaming hair, kneels over her pallid dying infant, whose cracked lips only her tears now moisten. All these heaped and huddled together, with nothing but a little carpentry and masonry between them;—crammed in like salted fish in their barrel;—or weltering, shall I say, like an Egyptian pitcher of tamed vipers, each struggling to get its *head above* the others: *such* work goes on under that smoke-counterpane! But I, *mein Werther*, sit above it all; I am alone with the Stars.”

Thomas Carlyle: *Sartor Resartus*.

BATTLE OF BULL RUN, JULY, 1861

The defeated troops commenced pouring into Washington over the Long Bridge at daylight on Monday, 22—day drizzling all through with rain. The Saturday and Sunday

of the battle (20th, 21st), had been parch'd and hot to an extreme—the dust, the grime and smoke, in layers, sweated in, follow'd by other layers again sweated in, absorb'd by those excited souls—their clothes all saturated with the clay-powder filling the air—stirr'd up everywhere on the dry roads and trodden fields by the regiments, swarming wagons, artillery, etc.—all the men with this coating of murk and sweat and rain, now recoiling back, pouring over the Long Bridge—a horrible march of twenty miles, returning to Washington baffled, humiliated, panic-struck. Where are the vaunts, and the proud boasts with which you went forth? Where are your banners, and your bands of music, and your ropes to bring back your prisoners? Well, there isn't a band playing—and there isn't a flag but clings ashamed and lank to its staff.

The sun rises, but shines not. The men appear, at first sparsely and shame-faced enough, then thicker, in the streets of Washington—appear in Pennsylvania avenue, and on the steps and basement entrances. They come along in disorderly mobs, some in squads, stragglers, companies. Occasionally, a rare regiment, in perfect order, with its officers (some gaps, dead, the true braves), marching in silence, with lowering faces, stern, weary to sinking, all black and dirty, but every man with his musket, and stepping alive; but these are the exceptions. Sidewalks of Pennsylvania avenue, Fourteenth street, etc., crowded, jamm'd with citizens, darkies, clerks, everybody, lookers-on; women in the windows, curious expressions from faces, as those swarms of dirt-cover'd return'd soldiers there (will they never end?) move by; but nothing said, no comments; During the forenoon Washington gets all over motley with these defeated soldiers—queer-looking objects, strange eyes and faces, drench'd (the steady rain drizzles on all day) and fearfully worn, hungry, haggard, blister'd in the feet. Good people (but not over-many of them either), hurry up something for their grub. They put wash-kettles on the fire, for soup, for coffee. They set tables on the sidewalks—wagon-loads of bread are purchas'd, swiftly cut in stout chunks. Here are two aged ladies, beautiful, the first in the city for culture and charm,

they stand with store of eating and drink at an improvish'd table of rough plank, and give food, and have the store replenish'd from their house every half-hour all that day; and there in the rain they stand, active, silent, white-hair'd, and give food, though the tears stream down their cheeks, almost without intermission, the whole time. Amid the deep excitement, crowds and motion, and desperate eagerness, it seems strange to see many, very many, of the soldiers sleeping—in the midst of all, sleeping sound. They drop down anywhere, on the steps of houses, up close by the basements or fences, on the sidewalk, aside on some vacant lot, and deeply sleep. A poor seventeen or eighteen year old boy lies there, on the stoop of a grand house; he sleeps so calmly, so profoundly. Some clutch their muskets firmly even in sleep. Some in squads; comrades, brothers, close together—and on them, as they lie, sulkily drips the rain.

Walt Whitman: *Specimen Days*.

V

THE SHIELD OF ACHILLES

Shun
April

First fashioned he [Hephaistos] a shield great and strong, adorning it all over, and set thereto a shining rim, triple, bright-glancing, and therefrom a silver baldrick. Five were the folds of the shield itself; and therein fashioned he much cunning work from his wise heart.

There wrought he the earth, and the heavens, and the sea, and the unwearying sun, and the moon waxing to the full, and the signs every one wherewith the heavens are crowned, Pleiads and Hyads and Orion's might, and the Bear that men call also the Wain, her that turneth in her place and watcheth Orion, and alone hath no part in the baths of Ocean.

Also he fashioned therein two fair cities of mortal men. In the one were espousals and marriage feasts, and beneath the blaze of torches they were leading the brides from their chambers through the city, and loud arose the bridal song. And young men were whirling in the dance, and among them flutes and viols sounded high; and the women standing each at her door were marvelling. But the folk were gathered

in the assembly place; for there a strife was arisen, two men striving about the blood-price of a man slain; the one avowed that he had paid all, expounding to the people, but the other denied that he had received aught; and each was fain to obtain consummation on the word of his witness. And the folk were cheering both, as they took part on either side. And heralds kept order among the folk, while the elders on polished stones were sitting in the sacred circle, and holding in their hands staves from the loud-voiced heralds. Then before the people they rose up and gave judgment each in turn. And in the midst lay two talents of gold, to be given unto him who should plead among them most righteously.

But around the other city were two armies in siege with glittering arms. And two councils found favor among them, either to sack the town or to share all with the townsfolk, even whatever substance the fair city held within. But the besieged were not yet yielding, but arming for an ambushment. On the wall there stood to guard it their dear wives and infant children, and with these the old men; but the rest went forth, and their leaders were Ares and Pallas Athene, both wrought in gold, and golden was the vesture they had on. Goodly and great were they in their armour, even as gods, far seen around, and the folk at their feet were smaller. And when they came where it seemed good to them to lay ambush, in a river bed where there was a common watering-place of herds, there they set them, clad in glittering bronze. And two scouts were posted by them afar off to spy the coming of flocks and of oxen with crooked horns. And presently came the cattle, and with them two herdsmen playing on pipes, that took no thought of guile. Then the others when they beheld these ran upon them and quickly cut off the herds of oxen and fair flocks of white sheep, and slew the shepherds withal. But the besiegers, as they sat before the speech-places and heard much din among the oxen, mounted forthwith behind their high-stepping horses, and came up with speed. Then they arrayed their battle and fought beside the river banks, and smote one another with bronze-shod spears. And among them mingled Strife and Tumult, and fell Death, grasping one man alive fresh-wounded, another

without wound, and dragging another dead through the mellay by the feet; and the raiment on her shoulders was red with the blood of men. Like living mortals they hurled together and fought, and haled the corpses each of the other's slain.

Furthermore he set in the shield a soft fresh-ploughed field, rich tilth and wide, the third time ploughed; and many ploughers therein drave their yokes to and fro as they wheeled about. Whensoever they came to the boundary of the field and turned, then would a man come to each and give into his hands a goblet of sweet wine, while others would be turning back along the furrows, fain to reach the boundary of the deep tilth. And the field grew black behind and seemed as it were a-ploughing, albeit of gold, for this was the great marvel of the work.

Furthermore he set therein a demesne-land deep in corn, where hinds were reaping with sharp sickles in their hands. Some armfuls along the swathe were falling in rows to the earth, while others the sheaf-binders were binding in twisted bands of straw. Three sheaf-binders stood over them, while behind boys gathering corn and bearing it in their arms gave it constantly to the binders; and among them the lord in silence was standing at the swathe with his staff, rejoicing in his heart. And henchmen apart beneath an oak were making ready a feast, and preparing a great ox they had sacrificed; while the women were strewing much white barley to be a supper for the hinds.

Also he set therein a vineyard teeming plenteously with clusters, wrought fair in gold; black were the grapes, but the vines hung throughout on silver poles. And around it he ran a ditch of cyanus, and round that a fence of tin; and one single pathway led to it, whereby the vintagers might go when they should gather the vintage. And maidens and striplings in childish glee bare the sweet fruit in plaited baskets. And in the midst of them a boy made pleasant music on a clear-toned viol, and sang thereto a sweet Linos-song with delicate voice; while the rest with feet falling together kept time with the music and song.

Also he wrought therein a herd of kine with upright horns,

and the kine were fashioned of gold and tin, and with lowing they hurried from the byre to pasture beside a murmuring river, beside the waving reed. And herdsmen of gold were following with the kine, four of them, and nine dogs fleet of foot came after them. But two terrible lions among the foremost kine had seized a loud-roaring bull that belled mightily as they haled him, and the dogs and the young men sped after him. The lions rending the great bull's hide were devouring his vitals and his black blood; while the herdsmen in vain tarred on their fleet dogs to set on, for they shrank from biting the lions but stood hard by and barked and swerved away.

Also the glorious lame god wrought therein a pasture in a fair glen, a great pasture of white sheep, and a steading, and roofed huts, and folds.

Also did the glorious lame god devise a dancing-place like unto that which, once in wide Knosos, Daidalos wrought for Ariadne of the lovely tresses. There were youths dancing and maidens of costly wooing, their hands upon one another's wrists. Fine linen the maidens had on, and the youths well-woven doublets faintly glistening with oil. Fair wreaths had the maidens, and the youths' daggers of gold hanging from silver baldricks. And now would they run round with deft feet exceeding lightly, as when a potter sitting by his wheel that fitteth between his hands maketh trial of it whether it run; and now anon they would run in lines to meet each other. And a great company stood round the lovely dance in joy; and among them a divine minstrel was making music on his lyre, and through the midst of them, as he began his strain, two tumblers whirled.

Also he set therein the great might of the River of Ocean around the uttermost rim of the cunningly-fashioned shield.

Translated from *The Iliad*, by Ernest Myers.

AN OPAL

.....a really fine opal, coquetting with the flashes of every gem that is known; it shot succinct red flashes, and green, and yellow; the emerald, the amethyst, the topaz, lived in it,

and a remote ruby; it was veined with lightning hues, and at times it slept in a milky cloud, innocent of fire, quite maidenlike.

George Meredith: *Rhoda Fleming*.

JOHN REED

John Reed was a schoolboy of fourteen....large and stout for his age, with a dingy and unwholesome skin; thick lineaments in a spacious visage, heavy limbs and large extremities. He gorged himself habitually at table, which made him bilious, and gave him a dim and bleared eye and flabby cheeks.

Charlotte Brontë: *Jane Eyre*.

TOM TULLIVER

He was one of those lads that grow everywhere in England, and at twelve or thirteen years of age look as much alike as goslings,—a lad with light-brown hair, cheeks of cream and roses, full lips, indeterminate nose and eyebrows,—a physiognomy in which it seems impossible to discern anything but the generic character of boyhood.

George Eliot: *The Mill on the Floss*.

SARTORIUS

The gentleman is fifty, tall, well preserved and of upright carriage, with an incisive, domineering utterance and imposing style, which, with his strong aquiline nose and resolute clean-shaven mouth, give him an air of importance. He wears a light grey frock-coat with silk linings, a white hat, and field-glass slung in a new leather case. A self-made man, formidable to servants, not easily accessible to any one.

George Bernard Shaw: *Widowers' Houses*.

CROFTS

Crofts is a tall, powerfully-built man of about fifty, fashionably dressed in the style of a young man. Nasal voice, reedier than might be expected from his strong frame. Clean-shaven, bull-dog jaws, large flat ears, and thick neck, gentlemanly combination of the most brutal types of city man, sporting man, and man about town.

George Bernard Shaw: *Mrs. Warren's Profession.*

DR. PARAMORE

Dr. Paramore is on the divan, reading "The British Medical Journal." He is a young man as age is counted in the professions—barely forty. His hair is wearing bald on his forehead; and dark arched eyebrows, coming rather close together, give him a conscientiously sinister appearance. He wears the frock coat and cultivates the "bedside manner" of the fashionable physician with scrupulous conventionality. Not at all a happy or frank man, but not consciously unhappy nor intentionally insincere, and highly self-satisfied intellectually.

George Bernard Shaw: *The Philanderer.*

TWO GENTLEMEN

The elder of the two gentlemen, Colonel Daniel Craven, affects the bluff, simple veteran, and carries it off pleasantly and well, having a fine upright figure, and being, in fact, a goodnatureedly impulsive, credulous person who, after an entirely thoughtless career as an officer and a gentleman, is now being startled into some sort of self-education by the surprising proceedings of his children.

His companion, Mr. Joseph Cuthbertson, has none of the Colonel's boyishness. He is a man of fervent idealistic sentiment, so frequently outraged by the facts of life, that he has acquired an habitually indignant manner, which unexpectedly becomes enthusiastic or affectionate when he speaks.

The two men differ greatly in expression. The Colonel's face is lined with weather, with age, with eating and drinking, and with the cumulative effects of many petty vexations, but not with thought; he is still fresh, and he has by no means full expectations of pleasure and novelty. Cuthbertson has the lines of sedentary London brain work, with its chronic fatigue and longing for rest and recreative emotion, and its disillusioned indifference to adventure and enjoyment, except as means of recuperation.

They are both in evening dress; and Cuthbertson wears his fur collared overcoat, which, with his vigilant, irascible eye, piled up hair, and the honorable earnestness with which he takes himself, gives him an air of considerable consequence.

George Bernard Shaw: *The Philanderer*.

ANNE GARLAND

Anne was fair, very fair, in a poetical sense; but in complexion she was of that particular tint between blonde and brunette which is inconveniently left without a name. Her eyes were honest and inquiring, her mouth cleanly cut and yet not classical, the middle point of her upper lip scarcely descending so far as it should have done by rights, so that at the merest pleasant thought, not to mention a smile, portions of two or three white teeth were uncovered whether she would or not. Some people said that this was very attractive. She was graceful and slender, and, though but little above five feet in height, could draw herself up to look tall. In her manner, in her comings and goings, in her "I'll do this," or "I'll do that," she combined dignity with sweetness as no other girl could do; and any impressionable stranger youths who passed by were led to yearn for a windfall of speech from her, and to see at the same time that they would not get it.

Thomas Hardy: *The Trumpet Major*.

CAPTAIN MACMURDO AT HOME

Captain Macmurdo, a veteran officer and Waterloo man, greatly liked by his regiment, in which want of money alone prevented him from attaining the highest ranks, was enjoying the forenoon calmly in bed. He had been at a fast supper-party given the night before by Captain the Honourable George Cinqbars, at his house in Brompton Square, to several young men of the regiment, and a number of ladies of the corps de ballet, and old Mac, who was at home with people of all ages and ranks, and consorted with generals, dog-fanciers, opera-dancers, bruisers, and every kind of person, in a word, was resting himself after the night's labours, and, not being on duty, was in bed.

His room was hung round with boxing, sporting, and dancing pictures, presented to him by comrades as they retired from the regiment, and married and settled into quiet life. And as he was now nearly fifty years of age, twenty-four of which he had passed in the corps, he had a singular museum. He was one of the best shots in England, and, for a heavy man, one of the best riders; indeed, he and Crawley had been rivals when the latter was in the army. To be brief, Mr. Macmurdo was lying in bed, reading in *Bell's Life* an account of that very fight between the Tutbury Pet and the Barking Butcher, which has been before mentioned—a venerable bristly warrior, with a little close-shaved grey head, with a silk nightcap, a red face and nose, and a great dyed moustache.

W. M. Thackeray: *Vanity Fair*.

LAWYER'S CLERKS

Scattered about, in various holes and corners of the Temple, are certain dark and dirty chambers, in and out of which, all the morning in Vacation, and half the evening too in Term time, there may be seen constantly hurrying with bundles of papers under their arms, and protruding from their pockets, an almost uninterrupted succession of Lawyers' Clerks. There are several grades of Lawyers' Clerks. There is the Articled Clerk, who has paid a pre-

mium, and is an attorney in perspective, who runs a tailor's bill, receives invitations to parties, knows a family in Gower Street and another in Tavistock Square, goes out of town every Long Vacation to see his father, who keeps live horses innumerable; and who is, in short, the very aristocrat of clerks. There is the salaried clerk—out of door, or in door, as the case may be—who devotes the major part of his thirty shillings a week to his personal pleasure and adornment, repairs half-price to the Adelphi at least three times a week, dissipates majestically at the cider cellars afterwards, and is a dirty caricature of the fashion, which expired six months ago. There is the middle-aged copying clerk, with a large family, who is always shabby, and often drunk. And there are the office lads in their first surtouts, who feel a befitting contempt for boys at day schools, club as they go home at night, for saveloys and porter, and think there's nothing like "life." There are varieties of the genus too numerous to recapitulate, but however numerous they may be, they are all to be seen, at certain regulated business hours, hurrying to and from the places we have just mentioned.

These sequestered nooks are the public offices of the legal profession, where writs are issued, judgments signed, declarations filed, and numerous other ingenious little machines put in motion for the torture and torment of His Majesty's liege subjects, and the comfort and emolument of the practitioners of the law. They are, for the most part, low-roofed, mouldy rooms, where innumerable rolls of parchment, which have been perspiring in secret for the last century, send forth an agreeable odour, which is mingled by day with the scent of the dry rot, and by night with the various exhalations which arise from damp cloaks, festered umbrellas, and the coarsest tallow candles.

Charles Dickens: *Pickwick Papers*.

CATHERINE MORLAND

No one who had ever seen Catherine Morland in her infancy would have supposed her born to be an heroine. Her situation in life, the character of her father and mother, her own

person and disposition, were all equally against her. Her father was a clergyman, without being neglected or poor, and a very respectable man, though his name was Richard, and he had never been handsome. He had a considerable independence, besides two good livings, and he was not in the least addicted to locking up his daughters. Her mother was a woman of useful plain sense, with a good temper, and, what is more remarkable, with a good constitution. She had three sons before Catherine was born; and, instead of dying in bringing the latter into the world, as any body might expect, she still lived on—lived to have six children more—to see them growing up around her, and to enjoy excellent health herself. A family of ten children will be always called a fine family, where there are heads, and arms, and legs enough for the number; but the Morlands had little other right to the word, for they were in general very plain, and Catherine, for many years of her life, as plain as any. She had a thin awkward figure, a sallow skin without colour, dark lank hair, and strong features; so much for her person, and not less unpropitious for heroism seemed her mind. She was fond of all boys' plays, and greatly preferred cricket, not merely to dolls, but to the more heroic enjoyments of infancy, nursing a dormouse, feeding a canary-bird, or watering a rosebush. Indeed she had no taste for garden, and if she gathered flowers at all, it was chiefly for the pleasure of mischief, at least so it was conjectured from her always preferring those which she was forbidden to take. Such were her propensities; her abilities were quite as extraordinary. She never could learn or understand anything before she was taught, and sometimes not even then, for she was often inattentive, and occasionally stupid. Her mother was three months in teaching her only to repeat the "Beggar's Petition," and, after all, her next sister Sally could say it better than she did. Not that Catherine was always stupid; by no means; she learnt the fable of "The Hare and many Friends," as quickly as any girl in England. Her mother wished her to learn music; and Catherine was sure she should like it, for she was very fond of tinkling the keys of the old forlorn spinnet, so at eight years old she began. She learnt a

year and could not bear it; and Mrs. Morland, who did not insist on her daughters being accomplished in spite of incapacity or distaste, allowed her to leave off. The day which dismissed the music-master was one of the happiest of Catherine's life. Her taste for drawing was not superior; though whenever she could obtain the outside of a letter from her mother, or seize upon any other odd piece of paper, she did what she could in that way by drawing houses and trees, hens and chickens, all very much like one another. Writing and accounts she was taught by her father; French by her mother. Her proficiency in either was not remarkable, and she shirked her lessons in both whenever she could. What a strange unaccountable character! for with all these symptoms of profligacy at ten years old, she had neither a bad heart nor a bad temper, was seldom stubborn, scarcely ever quarrelsome, and very kind to the little ones, with few interruptions of tyranny. She was, moreover, noisy and wild, hated confinement and cleanliness, and loved nothing so well in the world as rolling down the green slope at the back of the house.

Such was Catherine Morland at ten. At fifteen appearances were mending; she began to curl her hair and long for balls, her complexion improved, her features were softened by plumpness and colour, her eyes gained more animation, and her figure more consequence. Her love of dirt gave way to an inclination for finery, and she grew clean as she grew smart; she had now the pleasure of sometimes hearing her father and mother remark on her personal improvement. "Catherine grows quite a good-looking girl; she is almost pretty to-day," were words which caught her ears now and then; and how welcome were the sounds! To look *almost* pretty is an acquisition of higher delight to a girl who has been looking plain the first fifteen years of her life than a beauty from her cradle can ever receive.

Jane Austen: *Northanger Abbey*.

A PORTRAIT

We have no family pictures, Prue and I; only a portrait of my grandmother hangs upon our parlor wall. It was taken at least a century ago, and represents the venerable lady,

whom I remember in my childhood in spectacles and comely cap, as a young and blooming girl.

She is sitting upon an old-fashioned sofa, by the side of a prim aunt of hers, and with her back to the open window. Her costume is quaint, but handsome. It consists of a cream-colored dress made high in the throat, ruffled around the neck, and over the bosom and the shoulders. The waist is just under her shoulders, and the sleeves are tight, tighter than any of our coat sleeves, and also ruffled at the wrist. Around the plump and rosy neck, which I remember as shriveled and sallow, and hidden under a decent lace handkerchief, hangs, in the picture, a necklace of large ebony beads. There are two curls upon the forehead and the rest of the hair flows away in ringlets down the neck.

The hands hold an open book; the eyes look up from it with tranquil sweetness, and, through the open window behind, you see a quiet landscape—a hill, a tree, the glimpse of a river, and a few peaceful summer clouds.

Often in my younger days, when my grandmother sat by the fire after dinner, lost in thought—perhaps remembering the time when the picture was really a portrait—I have curiously compared her wasted face with the blooming beauty of the girl, and tried to detect a likeness. It was strange how the resemblance would sometimes start out; how, as I gazed and gazed upon her old face, age disappeared before my eager glance, as snow melts in the sunshine, revealing the flowers of a forgotten spring.

It was touching to see my grandmother steal quietly up to her portrait, on still summer mornings when everyone had left the house—and I, the only child, played, disregarded—and look at it wistfully and long.

She held her hand over her eyes to shade them from the light that streamed in at the window, and I have seen her stand at least a quarter of an hour gazing steadfastly at the picture. She said nothing, she made no motion, she shed no tear, but when she turned away there was always a pensive sweetness in her face that made it not less lovely than the face of her youth.

I have learned since, what her thoughts must have been—

how that long, wistful glance annihilated time and space, how forms and faces unknown to any other, rose in sudden resurrection around her—how she loved, suffered, struggled, and conquered again; how many a jest that I shall never hear, how many a game that I shall never play, how many a song that I shall never sing, were all renewed and remembered as my grandmother contemplated her picture.

George William Curtis: *Prue and I*.

MONNA LISA¹

The presence that thus rose so strangely beside the waters is expressive of what in the ways of a thousand years men had come to desire. Hers is the head upon which all the ends of the world are come and the eyelids are a little weary. It is a beauty wrought out from within upon the flesh, the deposit, little cell by cell, of strange thoughts and fantastic reveries and exquisite passions. Set it for a moment beside one of those white Greek goddesses or beautiful women of antiquity, and how would they be troubled by this beauty, into which the soul with all its maladies has passed! All the thoughts and experiences of the world have etched and moulded there, in that which they have of power to refine and make expressive the outward form, the animalism of Greece, the lust of Rome, the reverie of the middle age with its spiritual ambition and imaginative loves, the return of the Pagan world, the sins of the Borgias. She is older than the rocks among which she sits; like the vampire she has been dead many times, and learned the secrets of the grave; and has been a diver in deep seas and keeps their fallen day about her; and trafficked for strange webs with Eastern merchants; and, as Leda, was the mother of Helen of Troy, and, as Saint Anne, the mother of Mary; and all this has been to her but as the sound of lyre and flute and lives only in the delicacy with which it has moulded the changing lineaments, and tinged the eyelids and the hands. The fancy of a perpetual life, sweeping together ten thousand

1 [A famous portrait by da Vinci.]

experiences, is an old one; a modern thought has conceived the idea of humanity as wrought upon by, and summing up in itself, all modes of thought and life. Certainly Lady Lisa might stand as the embodiment of the old fancy, the symbol of the modern idea.

Walter Pater: *Leonardo da Vinci*.

CAPTAIN BROWN AND HIS DAUGHTERS

Captain Brown had taken a small house on the outskirts of the town, where he lived with his two daughters. He must have been upwards of sixty at the time of the first visit I paid to Cranford, after I had left it as a residence. But he had a wiry, well-trained, elastic figure; a stiff military throw-back of his head, and a springing step, which made him appear much younger than he was. His eldest daughter looked almost as old as himself, and betrayed the fact that his real, was more than his apparent, age. Miss Brown must have been forty; she had a sickly, pained, careworn expression on her face, and looked as if the gaiety of youth had long faded out of sight. Even when young she must have been plain and hard-featured. Miss Jessie Brown was ten years younger than her sister, and twenty shades prettier. Her face was round and dimpled. Miss Jenkyns once said, in a passion against Captain Brown (the cause of which I will tell you presently), "that she thought it was time for Miss Jessie to leave off her dimples, and not always be trying to look like a child." It was true that there was something childlike in her face; and there will be, I think, till she dies, though she should live to a hundred. Her eyes were large blue wondering eyes, looking straight at you; her nose was unformed and snub, and her lips were red and dewy; she wore her hair, too, in little rows of curls, which heightened this appearance. I do not know whether she was pretty or not; but I liked her face, and so did everybody, and I do not think she could help her dimples. She had something of her father's jauntiness of gait and manner; and any female observer might detect a slight difference in the attire of the two sisters—that of Miss Jessie being about two pounds

per annum more expensive than Miss Brown's. Two pounds was a large sum in Captain Brown's annual disbursements.

Such was the impression made upon me by the Brown family, when I first saw them all together in Cranford church. The Captain I had met before—on the occasion of the smoky chimney, which he had cured by some simple alteration in the flue. In church, he held his double eye-glass to his eyes during the Morning Hymn, and then lifted up his head erect, and sang out loud and joyfully. He made the responses louder than the clerk—an old man with a piping feeble voice, who, I think, felt aggrieved at the Captain's sonorous bass, and quavered higher and higher in consequence.

On coming out of church, the brisk Captain paid the most gallant attentions to his two daughters. He nodded and smiled to his acquaintances, but he shook hands with none until he had helped Miss Brown to unfurl her umbrella, and relieved her of her prayer-book, and had waited patiently till she, with trembling nervous hands, had taken up her gown to walk through the wet roads.

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It was impossible to live a month at Cranford, and not know the daily habits of each resident; and long before my visit was ended, I knew much concerning the whole Brown trio. There was nothing new to be discovered respecting their poverty; for they had spoken simply and openly about that from the very first. They made no mystery of the necessity for their being economical. All that remained to be discovered was the Captain's infinite kindness of heart, and the various modes in which, unconsciously to himself, he manifested it. Some little anecdotes were talked about for some time after they occurred. As we did not read much, and as all the ladies were pretty well suited with servants, there was a dearth of subjects for conversation. We therefore discussed the circumstances of the Captain taking a poor old woman's dinner out of her hands, one very slippery Sunday. He had met her returning from the bake-house as he came from church, and noticed her precarious footing; and, with the grave dignity with which he did everything,

he relieved her of her burden, and steered along the street by her side, carrying her baked mutton and potatoes safely home. This was thought very eccentric; and it was rather expected that he would pay a round of calls, on the Monday morning, to explain and apologize to the Cranford sense of propriety; but he did no such thing; and then it was decided that he was ashamed, and was keeping out of sight. In a kindly pity for him, we began to say—"After all, the Sunday morning's occurrence showed great goodness of heart"; and it was resolved that he should be comforted on his next appearance amongst us; but, lo! he came down upon us, untouched by any sense of shame, speaking loud and bass as ever, his head thrown back, his wig as jaunty and well-curved as usual, and we were obliged to conclude he had forgotten all about Sunday.

Miss Pole and Miss Jessie Brown had set up a kind of intimacy, so it happened that when I went to visit Miss Pole, I saw more of the Browns than I had done while staying with Miss Jenkyns; who had never got over what she called Captain Brown's disparaging remarks upon Dr. Johnson, as a writer of light and agreeable fiction. I found that Miss Brown was seriously ill of some lingering incurable complaint, the pain occasioned by which gave the uneasy expression to her face that I had taken for unmitigated crossness. Cross, too, she was at times, when the nervous irritability occasioned by her disease became past endurance. Miss Jessie bore with her at these times even more patiently than she did with the bitter self-upbraidings by which they were invariably succeeded. Miss Brown used to accuse herself, not merely of hasty and irritable temper; but also of being the cause why her father and sister were obliged to pinch, in order to allow her the small luxuries which were necessities in her condition. She would so fain have made sacrifices for them and have lightened their cares, that the original generosity of her disposition added acerbity to her temper. All this was borne by Miss Jessie and her father with more than placidity—with absolute tenderness. I forgave Miss Jessie her singing out of tune, and her juvenility of dress, when I saw her at home. I came to perceive

that Captain Brown's dark Brutus wig and padded coat (alas! too often threadbare) were remnants of the military smartness of his youth, which he now wore unconsciously. He was a man of infinite resources, gained in his barrack experience. As he confessed, no one could black his boots to please him, except himself; but, indeed, he was not above saving the little maid-servant's labors in every way—knowing, most likely, that his daughter's illness made the place a hard one.

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The poor, brave Captain! he looked older, and more worn, and his clothes were very threadbare. But he seemed as bright and cheerful as ever, unless he was asked about his daughter's health.

"She suffers a great deal, and she must suffer more; we do what we can to alleviate her pain—God's will be done!" He took off his hat at these last words. I found, from Miss Matty, that everything had been done, in fact. A medical man, of high repute in that country neighborhood, had been sent for, and every injunction he had given was attended to, regardless of expense. Miss Matty was sure they denied themselves many things in order to make the invalid comfortable; but they never spoke about it; and as for Miss Jessie! "I really think she's an angel," said poor Miss Matty, quite overcome. "To see her way of bearing with Miss Brown's crossness, and the bright face she puts on after she's been sitting up a whole night and scolded above half of it, is quite beautiful. Yet she looks as neat and as ready to welcome the Captain at breakfast time, as if she had been asleep in the Queen's bed all night. My dear! you could never laugh at her prim little curls or her pink bows again, if you saw her as I have done." I could only feel very penitent, and greet Miss Jessie with double respect when I met her next. She looked faded and pinched; and her lips began to quiver, as if she was very weak, when she spoke of her sister. But she brightened, and sent back the tears that were glittering in her pretty eyes, as she said:

"But, to be sure, what a town Cranford is for kindness! I don't suppose any one has a better dinner than usual cooked,

but the best part of all comes in a little covered basin for my sister. The poor people will leave their earliest vegetables at our door for her. They speak short and gruff, as if they were ashamed of it; but I am sure it often goes to my heart to see their thoughtfulness." The tears now came back and overflowed; but after a minute or two, she began to scold herself, and ended by going away, the same cheerful Miss Jessie as ever.

Mrs. Gaskell: *Cranford*.

FROM AN OFFICE WINDOW¹

My own personal and private window looks out on Mulberry Street. It is in a little den at the end of a long string of low-partitioned offices stretching along the Mulberry Street side; and we who tenant them have looked out of the windows for so many years that we have got to know, at least by sight, a great many of the dwellers thereabouts.

The figure and form which we know best are those of old Judge Phoenix—for so the office-jester named him when we first moved in, and we have known him by that name ever since. He is a fat old Irishman, with a clean-shaven face, who stands summer and winter in the side doorway that opens, next to the little grocery opposite, on the alley-way to the rear tenement. Summer and winter he is buttoned to his chin in a faded old black overcoat. Alone he stands for the most part, smoking his black pipe and teetering gently from one foot to the other. But sometimes a woman with a shawl over her head comes out of the alley-way and exchanges a few words with him before she goes to the little grocery to get a loaf of bread, or a half-pint of milk, or to make that favorite purchase of the poor—three potatoes, one turnip, one carrot, four onions, and a handful of kale—a "b'ilin'." And there is also another old man, a small and bent old man, who has some strange job that occupies odd hours of the day, who stops on his way to and from work to talk with the Judge. For hours and hours

¹ From *Jersey Street and Jersey Lane*; copyright, 1893, 1894, 1895, 1896, by Charles Scribner's Sons.

they talk together, till one wonders how in the course of years they have not come to talk themselves out. What can they have left to talk about? If they had been Mezzofanti and Macaulay, talking in all known languages on all known topics, they ought certainly to have exhausted the resources of conversation long before this time.

Judge Phoenix must be a man of independent fortune. . . . Perhaps he owns the rear tenement. I suspect so, for he must have been at one time in the labor-contract business. This, of course, is a mere guess, founded upon the fact that we once discovered the Judge away from his post and at work. It was the time they were repaving Broadway with the great pavement. We found the Judge at the corner of Bleecker Street perched on a pile of dirt, doing duty as sub-section boss. He was talking to the drivers of the vehicles that went past him, through the half-blockaded thoroughfare, and he was addressing them, after the true professional contractor's style, by the names of their loads.

"Hi there, sand," he would cry, "git along lively! Stone, it's you the boss wants on the other side of the street! Dhrygoods, there's no place for ye here; take the next turn!" It was a proud day for the old Judge, and I have no doubt that he talks it over still with his bent old crony, and boasts of vain deeds that grow in the telling.

Judge Phoenix is not, however, without mute company. Fair days and foul are all one to the Judge, but on fair days his companion is brought out. In front of the grocery is a box with a sloping top, on which are little bins for vegetables. In front of this box, again, on days when it is not raining or snowing, a little girl of five or six comes out of the grocery and sets a little red chair. Then she brings out a smaller girl yet, who may be two or three, a plump and puggy little thing; and down in the red chair big sister plunks little sister, and there till next mealtime little sister sits and never so much as offers to move. She must have been trained to this unchildlike self-imprisonment, for she is lusty and strong enough. Big sister works in the shop, and once in a while she comes out and settles little sister more comfortably in her red chair; and then little sister

has the sole moment of relief from a monotonous existence. She hammers on big sister's face with her fat little hands, and with such skill and force does she direct the blows that big sister often has to wipe her streaming eyes. But big sister always takes it in good part, and little sister evidently does it, not from any lack of affection, but in the way of healthful exercise. Then big sister wipes little sister's nose and goes back into the shop. I suppose there is some compact between them.

Of course there is plenty of child life all up and down the sidewalk on both sides, although little sister never joins in it. My side of the street swarms with Italian children, most of them from Jersey Street, which is really not a street, but an alley. Judge Phoenix's side is peopled with small Germans and Irish. I have noticed one peculiar thing about these children: they never change sides. They play together most amicably in the middle of the street or in the gutter, but neither ventures beyond its neutral ground.

Judge Phoenix and little sister are by far the most interesting figures to be seen from my windows, but there are many others whom we know. There is the Italian barber whose brother dropped dead while shaving a customer. You would never imagine, to see the simple and unaffected way in which he comes out to take the air once in a while, standing on the steps of his basement, and twirling his tin-backed comb in idle thought, that he had had such a distinguished death in his family. But I don't let him shave me.

Then there is Mamie, the pretty girl in the window with the lace curtains, and there is her epileptic brother. He is insane, but harmless, and amusing, although rather trying to the nerves. He comes out of the house in a hurry, walks quickly up the street for twenty or thirty feet, then turns suddenly, as if he had forgotten something, and hurries back, to reappear two minutes later from the basement door, only to hasten wildly in another direction, turn back again, plunge into the basement door, emerge from the upper door, get half way down the block, forget it again, and go back to make a new combination of doors and exits. . . .

In the window next to Mamie's is a little, putty-colored

face, and a still smaller white face, that just peeps over the sill. One belongs to the mulatto woman's youngster. Her mother goes out scrubbing, and the little girl is alone all day. She is so much alone, that the sage-green old bachelor in the second den from mine could not stand it last Christmas time, so he sent her a doll on the sly. That's the other face.

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Jersey Street, or at least the rear of it, seems to be given up wholly to the Italians. The most charming tenant of Jersey Street is the lovely Italian girl, who looks like a Jewess, whose mission in life seems to be to hang all day long out of her window and watch the doings in the little stone-flagged courts below her. In one of these an old man sometimes comes out, sits him down in a shady corner, and plays on the Italian bagpipes, which are really more painful than any hand-organ that ever was made. After a while his wife opens hostilities with him from her window. I suppose she is reproaching him for an idle devotion to art, but I cannot follow the conversation, although it is loud enough on both sides. But the handsome Italian girl up at the window follows the changes of the strife with the light of the joy of battle in her beautiful dark eyes, and I can tell from her face exactly which of the old folk is getting the better of it.

But though the life of Jersey and Mulberry Streets may be mildly interesting to outside spectators, the inhabitants must find it rather monotonous. Jersey Street is not only a blind alley, but a dead one, so far as outside life is concerned, and Judge Phoenix and little sister see pretty much the same old two-and-sixpence every day. The bustle and clamor of Mulberry Bend are only a few blocks below them, but the Bend is an exclusive slum; and Police Headquarters—the Central Office—is a block above, but the Central Office deals only with the refinements of artistic crime, and is not half so interesting as an ordinary police station. The priests go by from the school below, in their black robes and tall silk hats, always two by two, marching with brisk, business-like tread. An occasional drunken man or woman wavers along, but generally their faces and their conditions are familiar.

Sometimes two men hurry by, pressing side by side. If you have seen that peculiar walk before, you know what it means. Two light steel rings link their wrists together. The old man idly watches them until they disappear in the white marble building on the next block. And then, of course, there is always a thin stream of working folk going to and fro upon their business.

In spring and fall things brighten a little. Those are the seasons of processions and religious festivals. Almost every day then, and sometimes half a dozen times in a day, the Judge and the baby may see some Italian society parading through the street. Fourteen proud sons of Italy, clad in magnificent new uniforms, bearing aloft huge silk banners, strut magnificently in the rear of a German band of twenty-four pieces, and a drum-corps of a dozen more. Then, too, come the religious processions, when the little girls are taken to their first communion. Six sturdy Italians struggle along under the weight of a mighty temple or pavilion, all made of colored candles—the great big candles of the Romish church; mighty candles, six and eight feet tall, and as thick as your wrist, of red and blue and green and yellow, arranged in artistic combinations around a statue of the Virgin. From this splendid structure, silken ribbons stream in all directions, and at the end of each ribbon is a little girl—generally a pretty little girl—in a white dress bedecked with green bows. And each little girl leads by the hand one smaller than herself, sometimes a toddler so tiny that you marvel that it can walk at all. Some of the little ones are bare-headed, but most of them wear the square head-cloth of the Italian peasant, such as their mothers and grandmothers wore in Italy. At each side of the girls marches an escort of proud parents, very much mixed up with the boys of the families, who generally appear in their usual street dress. . . . And before and behind them are bands and drum-corps, and societies with banners, and it is all a blare of martial music and primary colors the whole length of the street.

But these are Mulberry Street's brief carnival seasons, and when their splendor has departed the block relapses into workaday dullness. . . .

Suddenly there is an explosion of sound . . . and a hand-organ starts off with a jerk like a freight train on a down grade, that joggles a whole string of crashing notes. It gets down to work, and its harsh, high-pitched, metallic drone makes the street ring for a moment. Then it is temporarily drowned by a chorus of shrill, small voices. I lean on my broad window-sill and look out. The street is filled with children of every age, size, and nationality; dirty children, clean children, well-dressed children, and children in rags . . . I do not know where they have all swarmed from. There were only three or four in sight just before the organ came; now there are several dozen in the crowd, and the crowd is growing. See, the women are coming out in the rear tenements. Some male passers-by line up on the edge of the sidewalk and look on with a superior air. The Italian barber has come all the way up his steps, and is sitting on the rail. Judge Phoenix has teetered forward at least half a yard, and stands looking at the show over the heads of a little knot of women hooded with red plaid shawls. The epileptic boy comes out on his stoop and stays there at least three minutes before the area-way swallows him. Up above there is a head in almost every casement. Mamie is at her window, and the little mulatto child at hers. There are only two people who do not stop and look on and listen. One is a Chinaman, who stalks by with no expression at all on his blank face; the other is the boy from the printing-office with a dozen foaming cans of beer on his long stick. But he does not leave because he wants to. He lingers as long as he can, in his passage through the throng, and disappears in the printing-office doorway with his head screwed half way around on his shoulders. He would linger yet, but the big foreman would call him "Spitzbube!" and would cuff his ears.

The children are dancing. The organ is playing "On the Blue Alsatian Mountains," and the little heads are bobbing up and down to it in time as true as ever was kept. Watch the little things! They are really waltzing. There is a young one of four years old. See her little worn shoes take the step and keep it! Look at that ring of children—all girls—waltzing round hand in hand! How is that for a

ladies' chain? The heart grows young to see them. And now look over to the grocery. Big sister has come out and climbed on the vegetable-stand, and is sitting in the potatoes with little sister in her lap. Little sister waves her fat, red arms in the air and shrieks in babyish delight. The old women with the shawls over their heads are talking together, crooning over the spectacle in their Irish way:

"That's me Mary Ann, I was tellin' ye about, Mrs. Rafferty, dancin' wid the little one in the green apron."

"It's a foine sthring o' childher ye have, Mrs. Finn," says Mrs. Rafferty, nodding her head as though it were balanced on wires. And so the dance goes on.

H. C. Bunner: *Jersey Street and Jersey Lane.*

A DUEL

Mr. Henry laid down his cards. He rose to his feet very softly, and seemed all the while like a person in deep thought. "You coward!" he said gently, as if to himself. And then, with neither hurry nor any particular violence, he struck the Master in the mouth.

The Master sprang to his feet like one transfigured; I had never seen the man so beautiful. "A blow!" he cried. "I would not take a blow from God Almighty!"

"Lower your voice," said Mr. Henry. "Do you wish my father to interfere for you again?"

"Gentlemen, gentlemen," I cried, and sought to come between them.

The Master caught me by the shoulder, held me at arm's length, and still addressing his brother: "Do you know what this means?" said he.

"It was the most deliberate act of my life," says Mr. Henry. "I must have blood, I must have blood for this," says the Master.

"Please God it shall be yours," said Mr. Henry; and he went to the wall and took down a pair of swords that hung there with others, naked. These he presented to the Master by the points. "Mackellar shall see us play fair," said Mr. Henry. "I think it very needful."

"You need insult me no more," said the Master, taking one of the swords at random. "I have hated you all my life."

"My father is but newly gone to bed," said Mr. Henry. "We must go somewhere forth of the house."

"There is an excellent place in the long shrubbery," said the Master.

"Gentlemen," said I, "shame upon you both! Sons of the same mother, would you turn against the life she gave you?"

"Even so, Mackellar," said Mr. Henry, with the same perfect quietude of manner he had shown throughout.

"It is what I will prevent," said I.

And now here is a blot upon my life. At these words of mine the Master turned his blade against my bosom; I saw the light run along the steel; and I threw up my arms and fell to my knees before him on the floor. "No, no," I cried, like a baby.

"We shall have no more trouble with him," said the Master. "It is a good thing to have a coward in the house."

"We must have a light," said Mr. Henry, as though there had been no interruption.

"This trembler can bring a pair of candles," said the Master.

To my shame be it said, I was still so blinded with the flashing of that bare sword that I volunteered to bring a lantern.

"We do not need a l-l-lantern," says the Master, mocking me. "There is no breath of air. Come, get to your feet, take a pair of lights, and go before. I am close behind with this—" making the blade glitter as he spoke.

I took up the candlesticks and went before them, steps that I would give my hand to recall; but a coward is a slave at the best; and even as I went, my teeth smote each other in my mouth. It was as he had said: there was no breath stirring; a windless stricture of frost had bound the air; and as we went forth in the shine of the candles, the blackness was like a roof over our heads. Never a word was said; there was never a sound but the creaking of our steps along the frozen path. The cold of the night fell about me like a bucket of water; I shook as I went with more than terror;

but my companions, bare-headed like myself, and fresh from the warm hall, appeared not even conscious of the change.

"Here is the place," said the Master. "Set down the candles."

I did as he bid me, and presently the flames went up, as steady as in a chamber, in the midst of the frosted trees, and I beheld these two brothers take their places.

"The light is something in my eyes," said the Master.

"I will give you every advantage," replied Mr. Henry, shifting his ground, "for I think you are about to die." He spoke rather sadly than otherwise, yet there was a ring in his voice.

"Henry Durie," said the Master, "two words before I begin. You are a fencer, you can hold a foil; you little know what a change it makes to hold a sword. And by that I know you are to fall. But see how strong is my situation! If you fall, I shift out of this country to where my money is before me. If I fall, where are you? My father, your wife—who is in love with me, as you very well know—your child even, who prefers me to yourself;—how will these avenge me! Had you thought of that, dear Henry?" He looked at his brother with a smile; then made a fencing room salute.

Never a word said Mr. Henry, but saluted too, and the swords rang together.

I am no judge of the play; my head, besides, was gone with cold and fear of horror; but it seems that Mr. Henry took and kept the upper hand from the engagement, crowding in upon his foe with a contained and glowing fury. Nearer and nearer he crept upon the man, till of a sudden the Master leaped back with a little sobbing oath; and I believe the movement brought the light once more against his eyes. To it they went again, on the fresh ground; but now methought closer, Mr. Henry pressing more outrageously, the Master beyond doubt with shaken confidence. For it is beyond doubt he now recognized himself for lost, and had some taste of the cold agony of fear; or he had never attempted the foul stroke. I cannot say I followed it, my untrained eye was never quick enough to seize details, but it appears he caught

his brother's blade with his left hand, a practice not permitted. Certainly Mr. Henry only saved himself by leaping on one side; as certainly the Master, lunging in the air, stumbled on his knee, and before he could move the sword was through his body.

I cried out with a stifled scream, and ran in; but the body was already fallen to the ground, where it writhed a moment like a trodden worm, and then lay motionless.

R. L. Stevenson: *The Master of Ballantrae*.

BOY AND GIRL

The next morning Maggie was trotting with her own fishing-rod in one hand and a handle of the basket in the other, stepping always, by a peculiar gift, in the muddiest places, and looking darkly radiant from under her beaver-bonnet because Tom was good to her. She had told Tom, however, that she should like him to put the worms on the hook for her, although she accepted his word when he assured her that worms couldn't feel (it was Tom's private opinion that it didn't matter much if they did). He knew all about worms, and fish, and those things; and what birds were mischievous, and how padlocks opened, and which way the handles of the gates were to be lifted. Maggie thought this sort of knowledge was very wonderful,—much more difficult than remembering what was in the books; and she was rather in awe of Tom's superiority, for he was the only person who called her knowledge "stuff," and did not feel surprised at her cleverness. Tom, indeed, was of the opinion that Maggie was a silly little thing; all girls were silly,—they couldn't throw a stone so as to hit anything, couldn't do anything with a pocket-knife, and were frightened at frogs. Still, he was very fond of his sister, and meant always to take care of her, make her his housekeeper, and punish her when she did wrong.

They were on their way to the Round Pool,—that wonderful pool that the floods had made a long while ago. No one knew how deep it was; and it was mysterious, too, that

it should be almost a perfect round, framed in with willows and tall reeds, so that the water was only to be seen when you got close to the brink. The sight of the old favorite spot always heightened Tom's good humor, and he spoke to Maggie in the most amicable whispers, as he opened the precious basket and prepared their tackle. He threw her line for her, and put the rod into her hand. Maggie thought it probable that the small fish would come to her hook, and the large ones to Tom's. But she had forgotten all about the fish, and was looking dreamily at the glassy water, when Tom said, in a loud whisper, "Look, look, Maggie!" and came running to prevent her from snatching her line away.

Maggie was frightened lest she had been doing something wrong, as usual, but presently Tom drew out her line and brought a large tench bouncing on the grass.

Tom was excited.

"O Magsie, you little duck! Empty the basket."

Maggie was not conscious of unusual merit, but it was enough that Tom called her Magsie, and was pleased with her. There was nothing to mar her delight in the whispers and the dreamy silences when she listened to the light dipping sounds of the rising fish, and the gentle rustling, as if the willows and the reeds and the water had their happy whisperings also. Maggie thought it would make a very nice heaven to sit by the pool in that way and never be scolded. She never knew she had a bite till Tom told her; but she liked fishing very much.

It was one of their happy mornings. They trotted along and sat down together, with no thought that life would ever change much for them; they would only get bigger and not go to school, and it would always be like the holidays; they would always live together and be fond of each other. And the mill with its booming; the great chestnut-tree under which they played at houses; their own little river, the Ripple, where the banks seemed like home, and Tom was always seeing the water-rats, while Maggie gathered the purple plummy tops of the reeds, which she forgot and dropped afterward; above all, the great Floss, along which they wandered with a sense of travel, to see the rushing spring-tide, the

awful Eagre, come up like a hungry monster, or to see the Great Ash which had once wailed and groaned like a man—these things would always be just the same to them. Tom thought people were at a disadvantage who lived on any other spot of the globe; and Maggie, when she read about Christiana passing “the river over which there is no bridge,” always saw the Floss between the green pastures by the Great Ash.

Life did change for Tom and Maggie; and yet they were not wrong in believing that the thoughts and loves of these first years would always make part of their lives. We could never have loved the earth so well if we had had no childhood in it,—if it were not the earth where the same flowers come up again every spring that we used to gather with our tiny fingers as we sat lisping to ourselves in the grass; the same hips and haws on the autumn hedgerows; the same red-breasts that we used to call “God’s birds,” because they did no harm to the precious crops. What novelty is worth that sweet monotony where everything is known, and *loved* because it is known?

The wood I walk in on this mild May day, with the young yellow-brown foliage of the oaks between me and the blue sky, the white star-flowers and the blue-eyed speedwell and ground ivy at my feet—what grove of tropic palms, what strange ferns or splendid broad-petalled blossoms, could ever thrill such deep and delicate fibres within me as this home scene? These familiar flowers, these well-remembered bird-notes, this sky, with its fitful brightness, these furrowed and grassy fields, each with a sort of personality given to it by the capricious hedgerows,—such things as these are the mother-tongue of our imagination, the language that is laden with all the subtle, inextricable associations the fleeting hours of our childhood left behind them. Our delight in the sunshine on the deep-bladed grass to-day might be no more than the faint perception of wearied souls, if it were not for the sunshine and the grass in the far-off years which still live in us, and transform our perception into love.

George Eliot: *The Mill on the Floss.*

STUDENTS' THEMES.

I.

A light west wind is blowing, which whistles like a gale as we exceed the speed limit over ten or twelve miles of good Massachusetts pike. There is a lingering feel of frost, although the sun shines bright and high, and the oak leaves, large as a mouse's ear, give the Redman's token that corn-planting time is come; while the swamp willows are green as the fresh flag grass that shoots its little tufts in the water beneath them, and arbutus buds are opening on every southern bank.

At Anawan, the Lake, with its neighboring ponds and puddles, teems with animal life. Tadpoles, newts, larval salamanders, dart about; fairy-shrimps, belly upward, guide with gently moving swimmerets their transparent, wraith-like forms among the shadows; and the water beetles, with long side oars, dash madly about from surface to bottom and back again, helter skelter, like dogs let loose at evening after having been chained all day. Masses of toads' eggs and the cases of caddis flies evidence the potential life that soon will be awakened. Down among the bottom stones—look closely—tiny red hydras and fresh water sponges cling, and flat-worms and leeches and yellow insect larvæ hide among the water plants.

But evening approaches. Overhead the cooler wind is whispering to the young leaves the coming of summer. A slide of the lever, a chugging of the exhaust, and once again we are exceeding the speed limit over the hard, smooth roadways of Massachusetts.

II.

The hour was after midnight and I know not what had awakened me, but I lay perfectly conscious in the full stream of moonlight that flooded through my wide-open window

on a calm night in early April. It was the first warm night of Spring; the moon shone softly through the thin low-hanging haze, and the atmosphere breathed of the warmth and dampness which precede the annual awakening of Nature. Far below me I heard a medley of sounds from the city's greatest thoroughfare, for my room was in an upper story of one of New York's tower-like apartment buildings. But the sounds below seemed unnatural, artificial, and my whole attention was directed above into the spaciousness of the quiet silvery night, which bespoke forests and plains just turning green, and rippling lakes bathed by the same moon, far away from the restless, hurrying city. I thought of my long winter confinement, of the months during which I had not seen a bird or a flower. Then suddenly, clearly from the air above, there came notes like the broken strains of a trumpet, —the wild geese were *honking* on their northward way. With a quickening of blood, the primeval passion, the longing for such freedom as only the brutes enjoy, swept over me, and before I fell into fitful, feverish slumber, I yielded to the irresistible impulse and vowed that on the morrow I should be off once more to the unsettled wilderness, there to remain until ambition, the vexation of man, should call me back to the strife and bondage of civilization.

III.

Captain Mayhew's ship chandlery long ago ceased to be an important factor in the commerce of Boothbay Harbor. Its dusty and fly-specked interior is no longer the scene of active barter; the few stray customers who find their way inside withdraw hastily when they have taken a cursory glance at the venerable contents of shelf and counter. The faded candy in the show-window fails to attract the small boy with a penny to spend, and the lithographic young ladies in tight sleeves and bustles no longer charm the onlooker into buying a cake of "Frank Siddle's Soap." As for the proprietor, Captain Mayhew himself, he smoketh a corn-cob and sitteth at ease amidst the wreckage of his former prosperity, splicing together the rope-ends of his variegated

career as sailor, fisherman, ship broker, and chandler. Retrospection is his delight, the occasional visit of an old crony, his solace. He loveth to turn his merry blue eye inwards and philosophize upon the ways of herring, of county politics, of sailormen, of summer visitors and nautical instruments. He joyeth to emit the salt-encrusted wisdom of the seas. Like his shop he is quaint and aromatic of the past. Both the place and the man carry us back to the days when grandmother was a belle, and we are fain to linger in the old store as in an eddy of the long-ago which the busy modern currents have failed to sweep away.

IV.

I am sitting on the upper veranda of the Bermuda Dinghy—they pronounce it *dinky*—Club, sipping brandy-and-soda to keep off the fever—an exceedingly pleasant way of staying healthy. I can see the lights of the naval station over on the other side of the harbor, and the anchor-light of a shadowy man-o'-war. All else is vagueness and starry tropical night. From somewhere among the deep shadows below me come the thrum of a guitar and the mellow tones of a negro serenading his dusky Miranda. The music ceases, and for a while all is still until a loud clattering on the pavement announces the approach of a group of drunken soldiers. Men of His Majesty's Lancashire Regiment, black Irish, are they, and their loud voices jar me from my pleasant reverie. But their footsteps and raucous laughter die away round the next corner and the night resumes its quiet. Quiet, did I say? Ah, but an emotional quiet, a palpitating stillness crowded with innumerable silent voices that fill the heart with languorously enchanting music. "This is living," I say to myself, and doze off idly repeating those lines of Shelley's,

The wandering airs they faint
On the dark, the silent stream—
And the Champak odors fail
Like sweet thoughts in a dream.

V.

The strains of Mendelsohn's Wedding March always remind me of a little girl in a long trailing night-gown, with two short pig-tails down her back, and two mischievous black eyes. Every evening a wonderful wedding procession used to wend its way slowly from the dressing-room through the hall to a little bedroom. The bride always was my little friend, whose cotton night gown was changed for the time being into a dress of the finest satin. The music she furnished herself, humming it low under her breath if the wedding was that of a meek and sweet young couple, or whistling it boisterously if the bride and groom belonged to high life on the Bowery. The groom, by the way, was always an imaginary quantity, for I steadfastly declined to assume the honors and responsibilities of that position. Instead, I was the flower-girl with a bouquet of combs and brushes and an armful of clothes. When the procession reached the bedroom door the inevitable always happened; either the church fell in and buried the meek couple, or an irate first wife appeared on the scene and carried off the base Bowery beau. Then I bundled the quondam bride into bed and told her to go to sleep at once. But for half an hour longer fragments of the Wedding March would come floating down the staircase into the sitting-room.

VI.

No one knew anything about Sophia except that the church paid her board, but everyone knew Sophia herself. Every Sunday morning and evening about five minutes after the service had begun, Sophia would march up the centre aisle arrayed in the glory of Mrs. Smith's last year's bonnet, Mrs. Jones's old silk waist, and Miss Brown's black and green golf skirt. All three ladies groaned inwardly as skirt, waist, and hat passed by, for Sophia possessed the knack of making the newest things look gray and seedy in a week. "That waist looks just as though I had dug it out of the ash-can before I gave it to her," thought Mrs. Jones.

But regular as Sophia was in her attendance at the church services, she was still more regular at socials and suppers. The fact that she had no ticket never troubled her. In she would walk with the calmest self-assurance and would order chicken salad, turkey sandwiches, mince pie, or ice cream, with the greatest composure. They usually gave her whatever she wanted, and report says that once after she had made away with seven plates of ice cream she sighed, "Oh, dear! I wish I could eat more, but I can't." Poor Sophia! To her life meant eating and drinking, but not being merry. How could she be happy when she was always trying to get as much as possible for herself?

Nevertheless, going home one night from a church supper with half a chocolate cake in her hand, she found a little boy crying in the street. Gathering from his complaints that he must be hungry she broke off a corner of the cake and gave it to him. Then she went home with something like a glow of satisfaction in her heart, which lasted until she had eaten all of the cake. But when she had gathered up the last few crumbs her heart went out longingly to the piece so rashly given away. And Sophia vowed she would never do it again.

VII.

NEWPORT, ISLE OF WIGHT

The Isle of Wight looks so insignificant on the map—just a little island off the south coast of England—that most tourists who are trying to "see" the British Isles pass it by unnoticed. It is off the beaten track which tourists follow, it has no old ruins of world-wide renown, it is the home of no men of extraordinary fame, and its surface is marked by no very unusual freaks of nature; indeed, it is only a bit of English country, just like any other English countryside except that it is surrounded by water, that it is a little more secluded, and that its fields are a little greener and its days sunnier than those of other parts of England. It is, however, so vivid an incarnation of rural England, so precisely a counterpart of the England which has been

depicted to your mind by every English writer from Chaucer to Tennyson, that, if you visit it, you get a breath of real English atmosphere, an insight into English rural life, which you cannot obtain by gazing at ancient ruins, by inspecting handsome cathedrals, or by listening to a guide's explanations of the wonders of a remarkable work of nature.

When you go to the Isle of Wight, if you make your headquarters at Newport, the musty old capital of the island, and stop at Warburton's Hotel, your host will tell you of an old castle about a mile's drive from the town, a Norman fortress with a Saxon keep, where King Charles was once kept a prisoner, and he will tell you of a fine stone church, where lie the remains of so-and-so, daughter of the well-known Prince so-and-so, of whom, undoubtedly, you have never heard. But, if you want to see the town of Newport, you will not take the innkeeper's advice and hire his carriage to make the tour of the neighborhood. You will take a walk out into the country, leave the stuffy little town behind, and ramble through the green fields and over the rounding hills, climbing over stiles, walking through gates, until you get out on top of one of the low hills, out in the bright morning sun, where you can look, without a thought of history and dates, at the old castle standing not far away on a wooded knoll, its stone tower extending above the surrounding trees.

From your position you can overlook the landscape. If you look back over the country you have passed through you will see the hills lying calm and still in the sunlight, their surface sectioned off into quiet little farms. I remember we likened the scene to a patchwork quilt spread over a billowy bed. A prettily arranged quilt it was. On the side of the larger billow, which lay opposite us, there was a large, right triangle of emerald-green velvet—a field of rich, young grass. Against one leg of this triangle was placed a rectangle of brown—a field lately plowed and still dark with the up-turned clod. From the other leg was spread out an irregular polygon of green pasture-land, spotted with white sheep. On the hypotenuse was constructed an uneven parallelogram, yellow with growing corn. And on the sides of all these fig-

ures lay other figures, and on the sides of these, others; circles of green, spotted with the brown backs of browsing cattle, squares of gray, plowed land, and more sections of sheep-dotted pasture, stretching in unordered neatness over the hillsides.

As you sit down on the soft, grassy bank and drowsily gaze at the brown lines of hawthorn hedges which separate the fields and intersect the opposite hillside in every direction; at the yellow strip of road which comes out of the valley, curving in a long bow diagonally across the hills, you dreamily absorb the peace and quiet of English rural life. Below, in the little valley, is a cozy-looking homestead, resting in the midst of a clump of trees. In the field above it a man is working with his scythe. Along the road an old woman is riding to town in her clumsy, wooden market-cart. From the hillside comes the noise of bleating sheep. In the hedge nearby a sparrow flutters about among the branches. From all around rises the good scent of growing things.

You loll around, quiet as the scene itself, until the sun in mid-sky informs you that lunch is waiting for you at Warburton's Hotel. As you start to return to your hotel, the stone keep of the castle peeps out from among the leaves to try to tell you that you have done no sight-seeing this morning. But the peaceful hills, the quietly browsing cattle, and the sweet-smelling air make you feel that you have seen deeper into the inside of England than if you had visited the King at Buckingham.

VIII.

DAYBREAK ON THE PRAIRIES

There was not a sign of human existence in sight. It mattered not in which direction we looked, the same forbidding prospect confronted us,—a sweep of saffron plain meeting in a far-off horizon a hot, cloudless summer sky, and that was all. We had but just made our way through a thick,

damp wood, and the open with its utter barrenness offered indeed an uninteresting contrast. Nevertheless we tramped on stoutly, sometimes stopping a moment to shift the shoulder straps of our packs or to mop our sweat-drenched faces. Every footfall sent up a little cloud of choking, white dust, and the sun was never so hot as it was that day.

Luckily, it was past noon when we left the wood, so that we had not been subjected to the sizzling heat a very long time before a gentle evening breeze came up to revive us somewhat and the sun began to sink upon our left. At about the same time we stumbled upon old, sand-clogged wagon ruts and knew that we had found the trail for which we had kept our eyes so long upon the ground.

We turned to follow the scarcely discernible track and plodded wearily onward, caring little that the flaring yellow of the plain had turned into a sickening grey, the intense blue of the sky into a lifeless, sombre drab; and the disappearing sun, with its gaudy magenta effects, seemed to us only like a clot of fresh blood upon dirty linen. When the sun sank entirely, there remained only a narrow streak of pale buff which gradually shaded off into a deep, deep violet, lending to the vastness of desolation an air of abject infiniteness.

When we could no longer see our own grotesque shadows, nor follow the trail with certainty, very silently we unslung our packs and spread a blanket upon the ground so that we might sleep a few minutes before setting out again, for we had decided to try to cross the little desert as soon as possible that same night. The absolute loneliness of our situation, however, cast an unhallowed, entrancing spell upon me, and I could not close my eyes.

I felt as if I were floating among the planets. There was not a star, though, to be seen, not a light of any sort; above, below, on every side, was the same velvet blackness; and the universe was as solemnly quiet, as heavily noiseless, as expectantly calm, as it was in the dawn of creation. I may have fallen asleep, but it seemed only a short time before I found myself lying full length, my chin in my hands, gazing straight ahead into the impenetrable darkness, and

unconsciously becoming conscious that the blackness in which I had been buried was stealthily changing into an indefinable, greenish grey.

Far away where earth and sky were one, unknown forces were striving to pry them apart, for, presently succeeding, a crevice, very narrow, letting in a silvery light, stretched along the edge of the plain; and from behind the crevice, which was gradually widening, glittered and glistened a million scintillating colors, until all at once there burst forth a soft, soothing golden glow, which grew brighter and brighter, and bordered at length with garish pinks and purples, until it merged finally into the downy grey above. I was completely charmed by the brilliancy of the swiftly changing colors which, of themselves, seemed to have distilled the clean, sweet perfumes the risen breezes were bearing. I sat up to watch a ribbon of purple unwind itself along the bank of gold. But the purple grew quickly into a dazzling, rich, soft, and perfectly pure blue, while in the meantime a clear-cut crescent of amber, from which radiated every imaginable tint, broke into what seemed the very foreground of the picture, rising lightly and steadily, casting into insignificance the splendid colors which had heralded its advent, until it rested in perfect balance upon the uttermost edge of the world,—a great disc of blinding, burnished copper.

We were into another day.

IX.

A TENEMENT HOUSE

We chose a fine April day to make our trip of inspection. After a brisk walk down a side street, past a few small shops and stores, past a few pleasant dwelling-places, we came into the section that we sought. Here and there a huge mill thundered out its unceasing noises and emitted a vast cloud of smoke, which dimmed the brightness of the day. Between the mills were rows or groups of houses, of all sizes, and

descriptions; all were undesirable in the extreme. The streets and yards were ill-kept and unsightly; children in all degrees of raggedness were tumbling about in the gutters.

Just beyond a particularly noisy mill, where sweaty, grimy faces appeared at the windows to watch us pass, was the object of our expedition,—a large, repulsive tenement house. We stopped on the opposite side of the street to look the house over before venturing inside it. It was a four-story building, rising directly from the sidewalk. The walls appeared to be of cement, a dirty, rough cement, but in many places the thin covering had fallen, revealing the true walls of small stones and plaster. There were two doors, which looked like the grim mouths of some unseemly cavern. The windows, apparently scattered over the walls without regard to plan, foretold an interesting, though not entirely pleasant, interior. Some had soiled and torn lace curtains, some exhibited a green plant or two or a row of cans and boxes, some were sadly broken, some had dirty curtains pulled closely down. There were no blinds. Ashes and garbage were heaped about the sides of the building. A small, rocky yard full of rubbish led from the side around to the back of the house.

We looked away at the green of the hills on the distant horizon, and up into the sky to see if, indeed, the day was as pleasant as we had thought. Then taking one more deep breath of pure air, we ventured into the nearest hallway.

The exterior had predicted not too much. The hall, painted a dull and discouraging blue, was barnlike and very dirty. The air was dead. A gray, rainy day could hardly have made the place more disagreeable. At the foot of the stairs were several doors, and at one of these we rapped. We waited several minutes before a slovenly, sodden woman opened the door a crack and gazed stupidly at us. To our question, "Do you speak English," she merely hung her head, and we could almost imagine that she could not speak any language at all, so few signs of human intelligence did she show. At last we gained admittance to the dim interior, and found there a boy who could talk a little with us and who led us around. There were but two rooms for the family of eight or ten. The first, in which we were, was a sleeping

room—at least, there were here two low beds, which now held the family's clothing. An old rug covered a portion of the rough floor. A little light, but no air, was afforded by a single darkened window. But this room was very clean, and about the walls were a gaudy picture or two, and a few gay bits of wearing apparel. We stopped in it only a moment before pushing on into the next room.

Here several men, all Poles, were sitting about, smoking some very poor tobacco and emitting occasional guttural remarks. We found that they were out of work and were living on their savings of the past. This room was as dirty as the other was clean, and was littered with pots, kettles, and broken furniture, which were strewn about the floor in utter confusion. Two cradles, probably brought from the "old country," indicated that here the children slept. Indeed, in one of them there now slept a chubby little Pole, entirely oblivious of all about him, and, happily entirely ignorant of the misfortune which had determined his lot in life.

Almost suffocated, we made our way out of this room, went up the creaking stairway, through dark halls and narrow passages, calling at many doors. Sometimes we were greeted by a dull, ignorant woman who would speak no word, but at other doors we found women, bright and happy, who were making the best of their surroundings. Some of these homes, if such they may be called, were clean and bright, like the mothers in them; many others were also like the mothers, dirty and disagreeable. We found filth, dirt, and unsanitary conditions from the top to the bottom of the house. But the vilest spot was the cellar. We reached this only after considerable difficulty, for we had to climb through the rubbish of several dark, unused rooms and down a still darker and most uncertain, stairway. Everything was damp and musty. We made our way through the dampness of two of the rooms into which the cellar was divided and came to a place that was worse than anything I had ever seen before. The drainage of the twenty-five or thirty families above passed through this room in a pipe along the ceiling. The pipe was not secure and its filth leaked down upon the earth of the cellar bottom, forming a great pool of putrefaction which

blocked our further progress. Out of the pool rose the posts on which the building rested, slowly rotting away. The constant dripping made an uncanny sound, and the awful stench quickly drove us back.

The yard in the rear of the house, to which we next went, was better in that it had, at least, more pure air and sunshine. A swarm of dirty children were playing here on the rocky side-hill on which the tenement was built. Close beside the house was a large bin filled with rotting garbage, whose fetid odors were rising to the windows above.

It was all bad—too bad. It was the evidence of neglect and ignorance. A place so evil, so injurious to health and so disgraceful to the community, it is hard to imagine. Yet this was vile beyond the power of description. We left the place fairly sickened at what we had seen, and walked slowly back into the city. The mills were closing, and we were just in time to see men, women, and children, of the sort we had been visiting, coming out of their prisons of the day to return to places worse than prisons, in which to spend their nights.

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PART IV

NARRATION

ASCENT OF THE WEISSHORN

In his own loom's garment drest,
By his proper bounty blest,
Fast abides this constant giver,
Pouring many a cheerful river,
To far eyes an ærial isle,
Unploughed, which finer spirits pile;
Which morn, and crimson evening, paint
For bard, for lover, and for saint;
The country's core,
Inspirer, prophet, evermore!

On Friday the 16th of August I rose at 4:30 A. M.; the eastern heaven was hot with the glow of the rising sun, and against the burning sky the mountain outlines were most impressively drawn. At 5:30 I bade goodbye to the excellent little auberge, and engaging a porter to carry my knapsack, went straight down the mountain towards Briegg. Beyond the end of the present ice the land gives evidence of vast glacier operations. It is scooped into hollows and raised into mounds; long ridges, sharpening to edges at the top, indicating the stranded moraines of the ancient glacier. And these hollows, and these hills, over which the ice had passed, destroying every trace of life which could possibly find a lodgment in them, were now clothed with the richest verdure. And not to vegetable life alone did they give support, for a million grylli chirruped in the grass. Rich, sapid meadows spread their emerald carpets in the sun; nut trees and fruit trees glimmered as the light fell upon their quivering leaves. Thus sanative nature healed the scars which she had herself inflicted. The road is very rough a part of the way to Briegg; let us trust that before your arrival it will be improved. I took the diligence to Visp, and engaged a porter immediately to Randa. I had sent Benen thither, on reaching the Bel Alp, to seek out a resting place whence the Weisshorn might be

assailed. On my arrival I learned that he had made the necessary reconnaissance, and entertained hopes of our being able to gain the top.

This noble mountain had been tried on various occasions and from different sides by brave and competent men, but had never been scaled; and from the entries in the travellers' books I might infer that formidable obstacles stood in the way of a successful ascent. The peak of the mountain is not visible at Randa, being far withdrawn behind the Alps. Beyond the Biezbach its ramparts consist of a craggy slope crowned above by three tiers of rocky strata. In front of the hotel is a mountain slope with pines clinging to its ledges, while stretching across the couloir of the Biezbach the divided ramparts are connected by battlements of ice. A quantity of debris which has been carried down the couloir spreads out in the shape of a fan at the bottom; near the edge of this debris stands a group of dingy houses, and close alongside them our pathway up the mountain runs.

Previous to quitting Randa I had two pair of rugs sewed together so as to form two sacks. These and other coverlets intended for my men, together with our wine and provisions, were sent on in advance of us. At 1 P. M., on the 18th of August, we, that is Benen, Wenger, and myself, quitted the hotel, and were soon zigzagging among the pines of the opposite mountain. Wenger had been the guide of my friend F., and had shown himself so active and handy on the Strahleck, that I commissioned Benen to engage him. During the previous night I had been very unwell, but I hoped that the strength left me, if properly applied, and drained to the uttermost, would still enable me to keep up with my companions. As I climbed the slope I suffered from intense thirst, and we once halted beside a fillet of clear spring water to have a draught. It seemed powerless to quench the drought which beset me. We reached a ch[^]âlet; milking time was at hand and at our request a smart young Senner caught up a pail, and soon returned with it full of delicious milk. It was poured into a small tub. With my two hands I seized the two ends of a diameter of this vessel, gave it the necessary inclination and stooping down, with a concentration of

purpose which I had rarely before exerted, I drew the milk into me. Thrice I returned to the attack before that insatiate thirst gave way. The effect was astonishing. The liquid appeared to lubricate every atom of my body, and its fragrance to permeate my brain. I felt a growth of strength at once commence within me; all anxiety as to physical power with reference to the work in hand soon vanished, and before retiring to rest I was able to say to Benen, 'Go where thou wilt to-morrow, and I will follow thee.'

Two hours' additional climbing brought us to our bivouac. A ledge of rock jutted from the mountain side, and formed an overhanging roof. On removing the stones from beneath it, a space of comparatively dry clay was laid bare. This was to be my bed, and to soften it Wenger considerably stirred it up with his axe. The position was excellent, for lying upon my left side, I commanded the whole range of Monte Rosa, from the Mischabel to the Breithorn. We were on the edge of an amphitheater. Beyond the Schallenberg was the stately Mettelhorn. A row of eminent peaks swept round to the right, linked by lofty ridges of cliffs, thus forming the circus in which the Schallenberg Glacier originated. They were, however, only a spur cast out from the vaster Weisshorn, the cone of which was not visible from our dormitory. I wished to examine it, and in company with Benen skirted the mountain for half-an-hour, until the whole colossal pyramid stood facing us. When I first looked at it my hope sank, but both of us gathered confidence from a more lengthened gaze. The mountain is a pyramid with three faces, the intersections of which form three sharp edges or *arêtes*. The end of the eastern *arête* was nearest to us, and on it our attention was principally fixed. A couloir led up to it filled with snow, which Benen, after having examined it with the telescope, pronounced 'furchtbar steil.' This slope was cut across by a bergschrund, which we also carefully examined, and finally, Benen decided on the route to be pursued next morning. A chastened hope was predominant in both our breasts as we returned to our shelter.

Water was our first necessity: it seemed everywhere, but there was none to drink. It was locked to solidity in the ice

and snow. The scound of it came booming up from the Vispbach, as it broke into foam or rolled its boulders over its waterworn bed; and the swish of many a minor streamlet mingled with the muffled roar of the large one. Benen set out in search of the precious liquid and after a long absence returned with a jug and panful. I had been particular in including tea in our list of provisions; but on opening the parcel we found it half green, and not to be indulged in at a moment when the main object of one's life was to get an hour's sleep. We rejected the tea and made coffee instead. At our evening meal the idea of toasting our cheese occurred to Wenger, who is a man rich in expedients of all kinds. He turned the section of a large cheese towards the flame of our pine fire; it fizzed and blistered and turned viscous, and the toasted surface being removed was consumed with relish by us all. Our meal being ended and our beds arranged, by the help of Benen, I introduced myself into my two sacks in succession, and placed a knapsack beneath my head for a pillow. The talk now ceased and sleep became the object of our devotions.

But the goddess flies most shyly where she is most intensely wooed, still I think she touched my eyes gently once or twice during the night. The sunset had been unspeakably grand, steeping the zenith in violet, and flooding the base of the heavens with crimson light. Immediately opposite to us, on the other side of the valley of St. Nicholas, rose the Mischabel, with its two great peaks, the Grubenhorn and the Täschhorn, each barely under 15,000 feet in height. Next came the Alphubel, with its flattened crown of snow; then the Alleleinhorn and Rympfischhorn encased in glittering enamel; then the Cima di Jazzi; next the mass of Monte Rosa, with nothing competent to cast a shadow between it and the sun, and consequently flooded with light from bottom to top. The face of the Lyskamm turned towards us was for the most part shaded, but here and there its projecting portions, jutted forth like red-hot embers as the light fell upon them. The 'Twins' were most singularly illuminated; across the waist of each of them was drawn a black bar produced by the shadow of a corner of the Breithorn, while their white

bases and whiter crowns were exposed to the sunlight. Over the rugged face of the Breithorn itself the light fell as if in splashes, igniting its glaciers and swathing its black crags in a layer of transparent red. The Mettelhorn was cold, so was the entire range over which the Weisshorn ruled as king, while the glaciers which they embraced lay grey and ghastly in the twilight shade.

The sun is going, but not yet gone; while up the arch of the opposite heavens, the moon, within one day of being full, is hastening to our aid. She finally appears exactly behind the peak of the Rympfischhorn: the cone of the mountain being projected for a time as a triangle on the disc. Only for a moment, however; for the queenly orb sails aloft, clears the mountain, and bears splendidly away through the tinted sky. The motion was quite visible, and resembled that of a vast balloon. As the day approached its end the scene assumed the most sublime aspect. All the lower portions of the mountains were deeply shaded, while the loftiest peaks, ranged upon a semicircle, were fully exposed to the sinking sun. They seemed pyramids of solid fire, while here and there long stretches of crimson light drawn over the higher snow-fields linked the glorified summits together. An intensely illuminated geranium flower seems to swim in its own colour which apparently surrounds the petals like a layer, and defeats by its lustre any attempt of the eye to seize upon the sharp outline of the leaves. A similar effect was here observed upon the mountains; the glory did not seem to come from them alone, but seemed also effluent from the air around them. This gave them a certain buoyancy which suggested entire detachment from the earth. They swam in splendour, which intoxicated the soul, and I will not now repeat in my moments of soberness the extravagant analogies which then ran through my brain. As the evening advanced, the eastern heavens low down assumed a deep purple hue, above which, and blending with it by infinitesimal gradations, was a belt of red, and over this again zones of orange and violet. I walked around the corner of the mountain at sunset, and found the western sky glowing with a more transparent crimson than that which overspread the east. The crown of the Weisshorn was

embedded in this magnificent light. After sunset the purple of the east changed to a deep neutral tint, and against the faded red which spread above it, the sun-forsaken mountains laid their cold and ghastly heads. The ruddy colour vanished more and more; the stars strengthened in lustre, until finally the moon and they held undisputed possession of the blue grey sky.

I lay with my face turned towards the moon until it became so chilled that I was forced to protect it by a light handkerchief. The power of blinding the eyes is ascribed to the moonbeams but the real mischief is that produced by radiation from the eyes into clear space, and the inflammation consequent upon the chill. As the cold increased I was fain to squeeze myself more and more underneath my ledge, so as to lessen the space of sky against which my body could radiate. Nothing could be more solemn than the night. Up from the valley came the low thunder of the Vispbach. Over the Dom flashed in succession the stars of Orion, until finally the entire constellation hung aloft. Higher up in heaven was the moon, and her rays as they fell upon the snowfields and pyramids were sent back in silvery lustre by some, while others remained dull. These, as the orb sailed round, came duly in for their share of the glory. The Twins caught it at length, and retained it long, shining with a pure spiritual radiance while the moon continued to ride above the hills.

I looked at my watch at 12 o'clock; and a second time at 2. A.M. The moon was then just touching the crest of the Schallenberg, and we were threatened with the withdrawal of her light. This soon occurred. We rose at 2¼ A.M., consumed our coffee, and had to wait idly for the dawn. A faint illumination at length overspread the west, and with this promise of the coming day we quitted our bivouac at 3½ A.M. No cloud was to be seen; as far as the weather was concerned we were sure to have fair play. We rounded the shingly shoulder of the mountain to the edge of a snowfield, but before entering upon it I disburthened myself of my strong shooting jacket, and left it on the mountain side. The sunbeams and my own exertion would, I knew,

keep me only too warm during the day. We crossed the snow, cut our way through a piece of entangled glacier, reached the bergschrund, and passed it without a rope. We ascended the frozen snow of the couloir by steps, but soon diverged from it to the rocks at our right, and scaled them to the end of the eastern *arête* of the mountain.

Here a saddle of snow separates us from the next higher rocks. With our staff-spikes at one side of the saddle, we pass by steps cut upon the other. The snow is firmly congealed. We reach the rocks, which we find hewn into fantastic turrets and obelisks, while the loose chips of this colossal sculpture are strewn confusedly upon the ridge. Amid the chips we cautiously pick our way, winding round the towers or scaling them amain. From the very first the work is heavy, the bending, twisting, reaching, and drawing up, calling upon all the muscles of the frame. After two hours of this work we halt, and looking back we observe two moving objects on the glacier below us. At first we take them to be chamois, but they are instantly pronounced men, and the telescope at once confirms this. The leader carries an axe, and his companion a knapsack and alpenstock. They are following our traces, losing them apparently now and then, and waiting to recover them. Our expedition had put Randa in a state of excitement, and some of its best climbers had come to Benen and urged him to take them with him. But this he did not deem necessary, and now here were two of them determined to try the thing on their own account; and perhaps to dispute with us the honor of the enterprise. On this point, however, our uneasiness was small.

Resuming our gymnastics, the rocky staircase led us to the flat summit of a tower, where we found ourselves cut off from a similar tower by a deep gap bitten into the mountain. Retreat appeared inevitable, but it is wonderful how many ways out of difficulty open to a man who diligently seeks them. The rope is here our refuge. Benen coils it around his waist, scrapes along the surface of the rock, fixes himself on a ledge, where he can lend me a helping hand. I follow him, Wenger follows me, and in a few min-

utes all three of us stand in the middle of the gap. By a kind of screw motion we twist ourselves round the opposite tower, and reach the *arête* behind it. Work of this kind, however, is not to be performed by the day, and with a view of sparing our strength, we quit the *arête* and endeavour to get along the southern slope of the pyramid. The mountain is here scarred by longitudinal depressions which stretch a long way down it. These are now filled with clear hard ice, produced by the melting and refreezing of the snow. The cutting of steps across these couloirs proves to be so tedious and fatiguing, that I urge Benen to abandon it and try the *arête* once more. By a stout tug we regain the ridge and work along it as before. Here and there from the northern side the snow has folded itself over the crags, and along it we sometimes work upward. The *arête* for a time has become gradually narrower, and the precipices on each side more sheer. We reach the end of one of the subdivisions of the ridge, and find ourselves separated from the next rocks by a gap about twenty yards across. The *arête* here has narrowed to a mere wall, which, however, as rock would present no serious difficulty. But upon the wall of rock is placed a second wall of snow, which dwindles to a knife edge at the top. It is white and pure, of very fine grain, and a little moist. How to pass this snow catenary I knew not, for I had no idea of a human foot trusting itself upon so frail a support. Benen's practical sagacity was, however, greater than mine. He tried the snow by squeezing it with his foot, and to my astonishment commenced to cross. Even after the pressure of his feet the space he had to stand on did not exceed a handbreath. I followed him, exactly as a boy walking along a horizontal pole, with toes turned outwards. Right and left the precipices were appalling; but the sense of power on such occasions is exceedingly sweet. We reached the opposite rock, and here a smile rippled over Benen's countenance as he turned towards me. He knew that he had done a daring thing, though not a presumptuous one. 'Had the snow,' he said, 'been less perfect, I should not have thought of attempting it, but I knew after I had set my foot upon the ridge that we might pass without fear.'

It is quite surprising what a number of things the simple observation made by Faraday, in 1846, enables us to explain. Benen's instinctive act is justified by theory. The snow was fine in grain, pure and moist. When pressed, the attachments of its granules were innumerable, and their perfect cleanness enabled them to freeze together with a maximum energy. It was this freezing together of the particles at innumerable points which gave the mass its sustaining power. Take two fragments of ordinary table ice and bring them carefully together, you will find that they freeze and cement themselves at their place of junction; or if two pieces float in water, you can bring them together, when they instantly freeze, and by laying hold of either of them gently, you can drag the other after it through the water. Imagine such points of attachment distributed without number through a mass of snow. The substance becomes thereby a semi-solid instead of a mass of powder. My guide, however, unaided by any theory, did a thing from which I, though backed by all the theories in the world, should have shrunk in dismay.

After this we found the rocks on the ridge so shaken to pieces that it required the greatest caution to avoid bringing them down upon us. With all our care, however, we sometimes dislodged vast masses which leaped upon the slope adjacent, loosened others by their shock, these again others, until finally a whole flight of them would escape, setting the mountain in a roar as they whizzed and thundered along its side to the snow-fields 4000 feet below us. The day is hot, the work hard, and our bodies are drained of their liquids as by a Turkish bath. The perspiration trickles down our faces, and drops profusely from the projecting points. To make good our loss we halt at intervals where the melted snow forms a liquid vein, and quench our thirst. We possess, moreover, a bottle of champagne, which, poured sparingly into our goblets on a little snow, furnishes Wenger and myself with many a refreshing draught. Benen fears his eyes, and will not touch champagne. The less, however, we rest the better, for after every pause I find a certain unwillingness to renew the toil. The muscles have become set, and

some minutes are necessary to render them again elastic. But the discipline is first-rate for both mind and body. There is scarcely a position possible to a human being which, at one time or another during the day, I was not forced to assume. The fingers, wrist, and forearm, were my main reliance, and as a mechanical instrument the human hand appeared to me this day in a light which it never assumed before. It is a miracle of constructive art.

We were often during the day the victims of illusions regarding the distance which we had to climb. For the most part the summit was hidden from us, but on reaching the eminences it came frequently into view. After three hours spent on the *arête*, about five hours that is, subsequent to starting, the summit was clearly in view; we looked at it over a minor summit, which gave it an illusive proximity. 'You have now good hopes,' I remarked, turning to Benen. 'Not only good hopes,' he replied, 'but I do not allow myself to entertain the idea of failure.' Well, six hours passed on the *arête*, each of which put in its inexorable claim to the due amount of mechanical work; the lowering and the raising of three human bodies through definite spaces, and at the end of this time we found ourselves apparently no nearer to the summit than when Benen's hopes cropped out in confidence. I looked anxiously at my guide as he fixed his weary eyes upon the distant peak. There was no confidence in the expression of his countenance; still I do not believe that either of us entertained for a moment the thought of giving in. Wenger complained of his lungs, and Benen counselled him several times to stop and let him and me continue the ascent; but this the Oberland man refused to do. At the commencement of a day's work I often find myself anxious, if not timid; but this feeling vanishes when I become warm and interested. When the work is very hard we become callous and sometimes stupefied by the incessant knocking about. This was my case at present, and I kept watch lest my indifference should become carelessness. I supposed repeatedly a case where a sudden effort might be required of me, and felt all through that I had a fair residue of strength to fall back upon. I tested this conclusion sometimes by a spurt; flinging

myself suddenly from rock to rock, and thus proved my condition by experiment instead of relying on opinion. An eminence in the ridge which cut off the view of the summit was now the object of our exertions. We reached it; but how hopelessly distant did the summit appear; Benen laid his face upon his axe for a moment; a kind of sickly despair was in his eye as he turned to me, remarking, 'Lieber Herr, die Spitze ist noch sehr weit oben.'

Lest the desire to gratify me should urge him beyond the bounds of prudence, I said to Benen that he must not persist on my account, if he ceased to feel confidence in his own powers; that I should cheerfully return with him the moment he thought it no longer safe to proceed. He replied that though weary he felt quite sure of himself, and asked for some food. He had it, and a gulp of wine, which mightily refreshed him. Looking at the mountain with a firmer eye, he exclaimed, 'Herr! wir müssen ihn haben,' and his voice, as he spoke, rung like steel within my heart. I thought of Englishmen in battle, of the qualities which had made them famous, it was mainly the quality of not knowing when to yield; of fighting for duty even after they had ceased to be animated by hope. Such thoughts had a dynamic value, and helped to lift me over the rocks. Another eminence now fronted us, behind which, how far we knew not, the summit lay. We scaled this height, and above us, but clearly within reach, a silvery pyramid projected itself against the blue sky. I was assured ten times by my companions that it was the highest point before I ventured to stake my faith upon the assertion. I feared that it also might take rank with the illusions which had so often beset our ascent, and shrunk from the consequent moral shock. Towards the point, however, we steadily worked. A large prism of granite, or granitic gneiss, terminated the *arête*, and from it a knife edge of pure white snow ran up to a little point. We passed along the edge, reached that point, and instantly swept with our eyes the whole range of the horizon. The crown of the Weisshorn was underneath our feet.

The long pent feelings of my two guides found vent in a wild and reiterated cheer. Benen shook his arms in the

air and shouted as a Valaisian, while Wenger chimed in with the shriller yell of the Oberland. We looked along the *arête*, and far below perched on one of its crags, could discern the two Randa men. Again and again the roar of triumph was sent down to them. They had accomplished but a small portion of the ridge, and soon after our success they wended their way homewards. They came, willing enough, no doubt, to publish our failure had we failed; but we found out afterwards that they had been equally strenuous in announcing our success; they had seen us, they affirmed, like three flies upon the summit of the mountain. Both men had to endure a little persecution for the truth's sake, for nobody in Randa would believe that the Weisshorn could be scaled, and least of all by a man who for two days previously had been the object of Philomène, the waiter's, constant pity, on account of the incompetence of his stomach to accept all that she offered for its acceptance. The energy of conviction with which the men gave their evidence had, however, convinced the most sceptical before we arrived ourselves.

Benen wished to leave some outward and visible sign of our success on the summit. He deplored having no flag; but as a substitute it was proposed that he should knock the head off his axe, use the handle as a flagstaff, and surmount it by a red pocket-handkerchief. This was done, and for some time subsequently the extempore banner was seen flapping in the wind. To his extreme delight, it was shown to Benen himself three days afterwards by my friend Mr. Galton from the Riffel Hotel. But you will desire to know what we saw from the summit, and this desire I am sorry to confess my total incompetence to gratify. I remember the picture, but cannot analyze its parts. Every Swiss tourist is acquainted with the Weisshorn. I have long regarded it as the noblest of all the Alps, and many, if not most other travellers, have shared this opinion. The impression it produces is in some measure due to the comparative isolation with which its cone juts into the heavens. It is not masked by other mountains, and all around the Alps its final pyramid is in view. Conversely the Weisshorn commands a vast range of prospect. Neither Benen nor myself had ever seen

anything at all equal to it. The day, moreover, was perfect; not a cloud was to be seen; and the gauzy haze of the distant air, though sufficient to soften the outlines and enhance the colouring of the mountains, was far too thin to obscure them. Over the peaks and through the valleys the sunbeams poured, unimpeded save by the mountains themselves, which in some cases drew their shadows in straight bars of darkness through the illuminated air. I had never before witnessed a scene which affected me like this. Benen once volunteered some information regarding its details, but I was unable to hear him. An influence seemed to proceed from it direct to the soul; the delight and exultation experienced were not those of Reason or of Knowledge, but of BEING:—I was part of it and it of me, and in the transcendent glory of Nature I entirely forgot myself as man. Suppose the sea waves exalted to nearly a thousand times their normal height, crest them with foam, and fancy yourself upon the most commanding crest, with the sunlight from a deep blue heaven illuminating such a scene, and you will have some idea of the form under which the Alps present themselves from the summit of the Weisshorn. East, west, north, and south, rose those 'billows of a granite sea,' back to the distant heaven, which they hacked into an indented shore. I opened my note-book to make a few observations, but I soon relinquished the attempt. There was something incongruous, if not profane, in allowing the scientific faculty to interfere where silent worship was the 'reasonable service.'

We had been ten hours climbing from our bivouac to the summit, and it was now necessary that we should clear the mountain before the close of day. Our muscles were loose and numbed, and unless extremely urged declined all energetic tension; the thought of our success, however, ran like a kind of wine through our fibres and helped us down. We once fancied that the descent would be rapid, but it was far from it. Benen, as in ascending, took the lead; he slowly cleared each crag, paused till I joined him, I pausing till Wenger joined me, and thus one or other of us was always in motion. Benen shows a preference for the snow where he can choose it, while I hold on to the rocks where my hands

can assist my feet. Our muscles are sorely tried by the twisting round the splintered turrets of the *arête*, and we resolve to escape from it when we can; but a long, long stretch of the ridge must be passed before we dare to swerve from it. We are roused from our stupefaction at times by the roar of the stones which we have loosed from the ridge, and sent leaping down the mountain. The snow catenary is attained, and we recross it. Soon afterwards we quit the ridge and try to get obliquely along the slope of the mountain. The face of the pyramid is here scarred by couloirs, of which the deeper and narrower ones are filled with ice, while the others are highways to the bottom of the mountain for the rocks quarried by the weather above. Steps must be cut in the ice, but the swing of the axe is very different now from what it was in the morning. Still, though Benen's blows descend with the deliberateness of a man whose fire is half-quenched, they fall with sufficient power, and the needful cavities are soon formed. We retrace our morning steps over some of the slopes. No word of warning was uttered here as we ascended, but now Benen's admonitions were frequent and emphatic,—‘Take care not to slip.’ I looked down the slopes; they seemed fearfully long, and those whose ends we could see were continued by rocks over which it would be the reverse of comfortable to be precipitated. I imagined, however, that even if a man slipped he would be able to arrest his descent; but Benen's response when I stated this opinion was very prompt,—‘No! it would be utterly impossible. If it were snow you might do it, but it is pure ice, and if you fall you will lose your senses before you can use your axe.’ I suppose he was right. At length we turn directly downwards, and work along one of the ridges which are here drawn parallel to the line of steepest fall. We first drop cautiously from ledge to ledge. At one place Benen clings for a considerable time to a face of rock, casting out feelers of leg and arm, and desiring me to stand still. I do not understand the difficulty, for the rock though steep is by no means vertical. I fasten myself to it, but Benen is now on a ledge below, waiting to receive me. The spot on which he stands is a little rounded protuberance sufficient to afford him footing,

but over which the slightest momentum would have carried him. He knew this, and hence his caution in descending. Soon after this we quit our ridge and drop into a couloir to the left of it. It is dark and damp with trickling water. The rope hampers us, and I propose its abandonment. We disencumber ourselves, and find our speed greatly increased. In some places the rocks are worn to a powder, along which we shoot by glissades. We swerve again to the left; cross a ridge, and get into another and drier couloir. The last one was dangerous, as the water exerted a constant sapping action upon the rocks. From our new position we could hear the clatter of stones descending the gully which we had just forsaken. Wenger, who had brought up the rear during the day, is now sent to the front; he has not Benen's power, but his legs are long and his descent rapid. He scents out the way, which becomes more and more difficult. He pauses, observes, dodges, but finally comes to a dead stop on the summit of a precipice, which sweeps like a rampart round the mountain. We move to the left, and after a long detour succeed in rounding the rocky wall. Again straight downwards. Half-an-hour brings us to the brow of a second precipice, which is scooped out along its centre so as to cause the brow to overhang. I see chagrin in Benen's face; he turns his eyes upwards, and I fear mortally that he is about to propose a re-ascent to the *arête*. He had actually thought of doing so, but it was very questionable whether our muscles could have responded to such a demand. While we stood pondering here, a deep and confused roar attracted our attention. From a point near the summit of the Weisshorn, a rock had been discharged; it plunged down a dry couloir, raising a cloud of dust at each bump against the mountain. A hundred similar ones were immediately in motion, while the spaces between the larger masses were filled by an innumerable flight of smaller stones. Each of them shakes its quantum of dust in the air, until finally the avalanche is enveloped in a vast cloud. The clatter of this devil's cavalry was stunning. Black masses of rock emerged here and there from the cloud, and sped through the air like flying fiends. Their motion was not one of translation merely, but they whizzed and vibrated in their flight as

if urged by wings. The clang of echoes resounded from side to side, from the Schallenberg to the Weisshorn and back, until finally the whole troop came to rest, after many a deep-sounding thud in the snow, at the bottom of the mountain. This stone avalanche was one of the most extraordinary things I had ever witnessed, and in connection with it, I would draw the attention of future climbers to the danger which would infallibly beset any attempt to ascend the Weisshorn from this side, except by one of its *arêtes*. At any moment the mountain side may be raked by a fire as deadly as that of cannon.

After due deliberation we move along the precipice westward, I fearing that each step forward is but plunging us into deeper difficulty. At one place, however, the precipice bevels off to a steep incline of smooth rock. Along this runs a crack, wide enough to admit the fingers, and sloping obliquely down to the lower glacier. Each in succession grips the rock and shifts his body sideways parallel to the fissure, until he comes near enough to the glacier to let go and slide down by a rough glissade. We afterwards pass swiftly along the glacier, sometimes running, and, on the steeper slopes, by sliding, until we are pulled up for the third time by a precipice which seems actually worse than either of the others. It is quite sheer, and as far as I can see right or left altogether hopeless. I fully expected to hear Benen sound a retreat, but to my surprise both men turned without hesitation to the right, which took us away from our side of the mountain. I felt desperately blank, but I could notice no expression of dismay in the countenance of either of the men. They observed the moraine matter over which we walked, and at length one of them exclaimed, 'Da sind die Spuren,' lengthening his strides at the same moment. We look over the brink at intervals, and at length discover what appears to be a mere streak of clay on the face of the precipice. We get round a corner, and find footing on this streak. It is by no means easy, but to hard-pushed men it is a deliverance. The streak vanishes, and we must scrape down the rock. This fortunately is rough, so that by pressing the hands against its rounded protuberances, and sticking the

boot-nails against its projecting crystals, we let our bodies gradually down. We thus reach the bottom; a deep cleft separates the glacier from the precipice, this is crossed, and we are now free men, clearly placed beyond the last bastion of the mountain.

I could not repress an expression of admiration at the behaviour of my men. The day previous to my arrival at Randa they had been up to examine the mountain, when they observed a solitary chamois moving along the base of this very precipice, and making several ineffectual attempts to get up it. At one place the creature succeeded; this spot they marked in their memories as well as they could, and when they reached the top of the precipice they sought for the traces of the chamois, found them, and were guided by them to the only place where escape in any reasonable time was possible. Our way is now clear; over the glacier we cheerfully march, and pass from the ice just as the moon and the eastern sky contribute about equally to the illumination. Wenger makes direct for our resting-place and packs up our things, while Benen and myself try to descend towards the châlet. Clouds gather round the Rympfischorn and intercept the light of the moon. We are often at a loss, and wander half-bewildered over the Alp. At length the welcome tinkle of cowbells is heard in the distance, and guided by them we reach the châlet a little after 9 P.M. The cows had been milked and the milk disposed of, but the men managed to get us a moderate draught. Thus refreshed we continue the descent, and are soon amid the pines which clothe the mountain facing Randa. A light glimmers from the window of the hotel; we conclude that they are waiting for us; it disappears, and we infer that they have gone to bed. Wenger is sent on to order some food; I was half-famished, for my nutriment during the day consisted solely of a box of meat lozenges given to me by Mr. Hawkins. Benen and myself descend the mountain deliberately, and after many windings emerge upon the valley, cross it, and reach the hotel a little before 11 P.M. I had a basin of broth, *not* made according to Liebig, and a piece of mutton boiled probably for the seventh time. Fortified by these, and comforted by a warm

footbath, I went to bed, where six hours' sound sleep chased away every memory of the Weissshorn save the pleasant ones. I was astonished to find the loose atoms of my body knitted so firmly together by so brief a rest. Up to my attempt upon the Weissshorn I had felt more or less dilapidated, but here all weakness ended. My fibres assumed more and more the tenacity of steel and during my subsequent stay in Switzerland I was unacquainted with infirmity. If you, my friend, should ask me why I incur such labour and such risk, here is *one* reply.

John Tyndall: *Mountaineering in 1861.*

AN ESCAPE FROM PRISON

[Prince Kropotkin, broken in health by his imprisonment in the fortress of St. Peter and St. Paul, has just been transferred to the military hospital on the outskirts of St. Petersburg.]

In the hospital I began at once to recover. I was given a spacious room on the ground floor, close by the room of the military guard. It had an immense grated window looking south, which opened on a small boulevard with two rows of trees; and beyond the boulevard there was a wide space where two hundred carpenters were engaged in building wooden shanties for typhoid patients. A sentry marched up and down the boulevard, his box standing opposite my room.

In the fortress I had heard from a comrade who had been in the hospital prison that it would not be hard for me to escape from it, and I made my presence there known to my friends. However, escape proved far more difficult than I had been led to believe. A stricter supervision than had ever before been heard of was exercised over me. The sentry in the passage was placed at my door, and I was never let out of my room. The hospital soldiers and the officers of the guard who occasionally entered it seemed to be afraid to stay more than a minute or two.

Various plans were made by my friends to liberate me,—some of them very amusing. I was, for instance, to file through the iron bars of my window. Then, on a rainy

night, when the sentry on the boulevard was dozing in his box, two friends were to creep up from behind and overturn the box, so that it would fall upon the sentry and catch him like a mouse in a trap, without hurting him. In the meantime, I was to jump out of the window. But a better solution came in an unexpected way.

"Ask to be let out for a walk," one of the soldiers whispered to me one day. I did so. The doctor supported my demand, and every afternoon, at four, I was allowed to take an hour's walk in the prison yard. I had to keep on the green flannel dressing-gown which is worn by the hospital patients, but my boots, my vest, and my trousers were delivered to me every day.

I shall never forget my first walk. When I was taken out, I saw before me a yard full three hundred paces long and more than two hundred paces wide, all covered with grass. The gate was open, and through it I could see the street, the immense hospital opposite, and the people who passed by. I stopped on the doorsteps of the prison, unable for a moment to move when I saw that yard and that gate.

At one end of the yard stood the prison,—a narrow building, about one hundred and fifty paces long,—at each end of which was a sentry box. Two sentries paced up and down in front of the building, and had tramped out a footpath in the green. Along this footpath I was told to walk, and the two sentries continued to walk up and down,—so that I was never more than ten or fifteen paces from the one or the other. Three hospital soldiers took their seats on the doorsteps.

At the opposite end of this spacious yard wood for fuel was being unloaded from a dozen carts, and piled up along the wall by a dozen peasants. The whole yard was inclosed by a high fence made of thick boards. Its gate was open to let the carts in and out.

This open gate fascinated me. "I must not stare at it," I said to myself; and yet I looked at it all the time. As soon as I was taken back to my cell I wrote to my friends to communicate to them the welcome news. "I feel well—high unable to use the cipher," I wrote with a tremulous

hand, tracing almost illegible signs instead of figures. "This nearness of liberty makes me tremble as if I were in a fever. They took me out to-day in the yard; its gate was open, and no sentry near it. Through this unguarded gate I will run out; my sentries will not catch me,"—and I gave the plan of escape. "A lady is to come in an open carriage to the hospital. She is to alight, and the carriage to wait for her in the street, some fifty paces from the gate. When I am taken out, at four, I shall walk for a while with my hat in my hand, and somebody who passes by the gate will take it for a signal that all is right within the prison. Then you must return a signal: 'The street is clear.' Without it I shall not start; once beyond the gate I must not be recaptured. Light or sound only can be used for your signal. The coachman may send a flash of light,—the sun's rays reflected from his laquered hat upon the main hospital building; or, still better, the sound of a song continued as long as the street is clear; unless you can occupy the little gray bungalow which I see from the yard, and signal to me from its window. The sentry will run after me like a dog after a hare, describing a curve, while I run in a straight line, and I *will* keep five or ten paces in advance of him. In the street, I shall spring into the carriage and we shall gallop away. If the sentry shoots—well, that cannot be helped; it lies beyond our foresight; and then, against a certain death in prison, the thing is well worth the risk."

Counter proposals were made, but that plan was ultimately adopted. The matter was taken in hand by our circle; people who never had known me entered into it, as if it were the release of the dearest of their brothers. However, the attempt was beset with difficulties, and time went with terrible rapidity. I worked hard, writing late at night; but my health improved, nevertheless, at a speed which I found appalling. When I was let out into the yard for the first time, I could only creep like a tortoise along the footpath; now I felt strong enough to run. True, I continued to go at the same tortoise pace, lest my walks should be stopped; but my natural vivacity might betray me at any moment. And my comrades, in the meantime, had to enlist more

than a score of people in the affair, to find a reliable horse and an experienced coachman, and to arrange hundreds of unforeseen details which always spring up around such conspiracies. The preparations took a month or so, and any day I might be moved back to the house of detention.

At last the day of escape was settled. June 29, Old Style, is the day of St. Peter and St. Paul. My friends, throwing a touch of sentimentalism into their enterprise, wanted to set me free on that day. They had let me know that in reply to my signal "All right within" they would signal "All right outside" by sending up a red toy balloon. Then the carriage would come, and a song would be sung to let me know when the street was open.

I went out on the 29th, took off my hat, and waited for the balloon. But nothing of the kind was to be seen. I heard the rumble of a carriage in the street; I heard a man's voice singing a song unknown to me; but there was no balloon.

The hour was over, and with a broken heart I returned to my room. "Something must have gone wrong," I said to myself.

The impossible had happened that day. Hundreds of children's balloons are always on sale in St. Petersburg, near the Gostoni Dvor. That morning there were none; not a single balloon was to be found. One was discovered at last, in the possession of a child, but it was old and would not fly. My friends rushed then to an optician's shop, bought an apparatus for making hydrogen, and filled the balloon; but it would not fly any better; the hydrogen had not been dried. Time pressed. Then a lady attached the balloon to her umbrella, and, holding the umbrella high over her head, walked up and down in the street along the high wall of our yard; but I saw nothing of it,—the wall being too high, and the lady too short.

As it turned out, nothing could have been better than that accident with the balloon. When the hour of my walk had passed, the carriage was driven along the streets which it was intended to follow after the escape; and there, in a narrow street it was stopped by a dozen or more carts which

were carrying wood to the hospital. The horses of the carts got into disorder and the carriage had to make its way at a slow pace amongst them; at a turning it was actually blocked. If I had been in it, we should have been caught.

Now a whole system of signals was established along the streets through which we should have to go after the escape, in order to give notice if the streets were not clear. For a couple of miles from the hospital my comrades took the position of sentries. One was to walk up and down with a handkerchief in his hand, which, at the approach of the carts, he was to put into his pocket; another was to sit on a stone and eat cherries, stopping when the carts came near; and so on. All these signals, transmitted along the streets, were finally to reach the carriage. My friends had also hired the gray bungalow that I had seen from the yard, and at an open window of that little house a violinist was to stand, ready to play when the signal "Street clear" reached him.

The attempt had been settled for the next day. Further postponement would have been dangerous. In fact, the carriage had been taken notice of by the hospital people, and something suspicious must have reached the ears of the authorities, as on the night before my escape I heard the patrol officer ask the sentry who stood opposite my window, "Where are your ball cartridges?" The soldier began to take them in a clumsy way out of his cartridge pouch, spending a couple of minutes before he got them. The patrol officer swore at him. "Have you not been told to keep four ball cartridges in the pocket of your coat?" And he stood by the sentry till the latter put four cartridges into his pocket. "Look sharp!" he said as he turned away.

The new arrangements concerning the signals had to be communicated to me at once; and at two on the next day a lady—a dear relative of mine—came to the prison, asking that a watch might be transmitted to me. Everything had to go through the hands of the procureur; but as this was simply a watch, without a box, it was passed along. In it was a tiny cipher note which contained the whole plan. When I read it I was seized with terror, so daring was the

feat. The lady, herself under pursuit by the police for political reasons, would have been arrested on the spot, if any one had chanced to open the lid of the watch. But I saw her calmly leave the prison and move slowly along the boulevard.

I came out at four, as usual, and gave my signal. I heard next the rumble of the carriage, and a few minutes later the tones of the violin in the gray house sounded through our yard. But I was then at the other end of the building. When I got back to the end of my path which was nearest the gate—about a hundred paces from it—the sentry was close upon my heels. “One turn more,” I thought—but before I reached the farther end of the path the violin suddenly ceased playing.

More than a quarter of an hour passed, full of anxiety, before I understood the cause of the interruption. Then a dozen heavily loaded carts entered the gate and moved to the other end of the yard.

Immediately, the violinist—a good one, I must say—began a wildly exciting mazurka from Koutsky, as if to say, “Straight on now,—this is your time!” I moved slowly to the nearer end of the footpath, trembling at the thought that the mazurka might stop before I reached it.

When I was there I turned round. The sentry had stopped five or six paces behind me; he was looking the other way. “Now or Never!” I remember that thought flashed through my head. I flung off my green flannel dressing-gown and began to run.

For many days in succession I had practiced how to get rid of that immeasurably long and cumbrous garment. It was so long that I carried the lower part on my left arm, as ladies carry the trains of their riding habits. Do what I might, it would not come off in one movement. I cut the seams under the armpits, but that did not help. Then I decided to learn to throw it off in two movements; one casting the end from my arm, the other dropping the gown on the floor. I practiced patiently in my room until I could do it as neatly as soldiers handle their rifles. “One, two,” and it was on the ground.

"I did not trust much to my vigor, and began to run rather slowly, to economize my strength. But no sooner had I taken a few steps than the peasants who were piling the wood at the other end shouted, "He runs! Stop him! Catch him!" and they hastened to intercept me at the gate. Then I flew for my life. I thought of nothing but running,—not even of the pit that the carts had dug out at the gate. Run! run! full speed!

The sentry, I was told later by the friends who witnessed the scene from the gray house, ran after me, followed by three soldiers who had been sitting on the doorsteps. The sentry was so near me that he felt sure of catching me. Several times he flung his rifle forward, trying to give me a blow in the back with the bayonet. One moment my friends in the window thought he had me. He was so convinced that he could stop me in this manner that he did not fire. But I kept my distance, and he had to give up at the gate.

Safe out of the gate, I perceived, to my terror, that the carriage was occupied by a civilian who wore a military cap. He sat without turning his head to me. "Sold!" was my first thought. The comrades had written in their last letter, "Once in the street, don't give yourself up; there will be friends to defend you in case of need," and I did not want to jump into the carriage if it was occupied by an enemy. However, as I got nearer to the carriage I noticed that the man in it had sandy whiskers which seemed to be those of a warm friend of mine. He did not belong to our circle, but we were personal friends, and on more than one occasion I had learned to know his admirable, daring courage, and how his strength suddenly became herculean when there was danger at hand. "Why should he be there? Is it possible?" I reflected, and was going to shout out his name, when I caught myself in good time, and instead clapped my hands, while still running, to attract his attention. He turned his face to me, and I knew who it was.

"Jump in, quick, quick!" he shouted in a terrible voice, calling me and the coachman all sorts of names, a revolver in his hand and ready to shoot. "Gallop! gallop! I will kill you!" he cried to the coachman. The horse—a beautiful

racing trotter, which had been bought on purpose—started at full gallop. Scores of voices yelling, “Hold them! Get them!” resounded behind us, my friend meanwhile helping me to put on an elegant overcoat and an opera hat. But the real danger was not so much in the pursuers as in a soldier who was posted at the gate of the hospital, about opposite the spot where the carriage had to wait. He could have prevented my jumping into the carriage, or could have stopped the horse, by simply rushing a few steps forward. A friend was consequently commissioned to divert this soldier by talking. He did this most successfully. The soldier having been employed at one time in the laboratory of the hospital, my friend gave a scientific turn to their chat, speaking about the microscope and the wonderful things one sees through it. Referring to a certain parasite of the human body, he asked, “Did you ever see what a formidable tail it has?” “What, man, a tail?” “Yes, it has; under the microscope it is as big as that.” “Don’t tell me any of your tales!” retorted the soldier. “I know better. It was the first thing I looked at under the microscope.” This animated discussion took place just as I ran past them and sprang into the carriage. It sounds like fable, but it is fact.

The carriage turned sharply into a narrow lane, past the same wall of the yard where the peasants had been piling wood, and which all of them had now deserted in their run after me. The turn was so sharp that the carriage was nearly upset, when I flung myself inward, dragging toward me my friend; this sudden movement righted the carriage.

We trotted through the narrow lane and then turned to the left. Two gendarmes were standing there at the door of a public-house, and gave to the military cap of my companion the military salute. “Hush! hush!” I said to him, for he was still terribly excited. “All goes well; the gendarmes salute us!” The coachman thereupon turned his face toward me, and I recognized in him another friend, who smiled with happiness.

Everywhere we saw friends, who winked to us or gave us a God-speed as we passed at the full trot of our beautiful horse. Then we entered the large Nevsky Prospekt, turned

into a side street, and alighted at a door, sending away the coachman. I ran up a staircase, and at its top fell into the arms of my sister-in-law, who had been waiting in painful anxiety. She laughed and cried at the same time, bidding me hurry to put on another dress and to crop my conspicuous beard. Ten minutes later my friend and I left the house and took a cab.

In the meantime, the officer of the guard at the prison and the hospital soldiers had rushed out into the street, doubtful as to what measures they should take. There was not a cab for a mile round, every one having been hired by my friends. An old peasant woman from the crowd was wiser than all the lot. "Poor people," she said, as if talking to herself, "they are sure to come out on the Prospekt, and there they will be caught if somebody runs along that lane, which leads straight to the Prospekt." She was quite right, and the officer ran to the tramway car that stood close by, and asked the men to let him have their horses to send somebody on horseback to intercept us. But the men obstinately refused to give up their horses, and the officer did not use force.

As to the violinist and the lady who had taken the gray house, they rushed out and joined the crowd with the old woman, whom they heard giving advice, and when the crowd dispersed they went away also.

It was a fine afternoon. We drove to the islands where all the St. Petersburg aristocracy goes on bright spring days to see the sunset, and called on the way, in a remote street, at a barber's shop to shave off my beard, which operation changed me, of course, but not very much. We drove aimlessly up and down the islands, but, having been told not to reach our night quarters till late in the evening, did not know where to go. "What shall we do in the meantime?" I asked my friend. He also pondered over that question. "To Donon!" he suddenly called out to the cabman, naming one of the best St. Petersburg restaurants. "No one will ever think of looking for you at Donon," he calmly remarked. "They will hunt for you everywhere else, but not there; and we shall have a dinner in honor of the success of your escape."

What could I reply to so reasonable a suggestion? So we

went to Donon, passed the halls flooded with light and crowded with visitors at the dinner hour, and took a separate room, where we spent the evening till the time came when we were expected. The house where we had first alighted was searched less than two hours after we left, as were also the apartments of nearly all our friends. Nobody thought of making a search at Donon.

A couple of days later I was to take possession of an apartment which had been engaged for me, and which I could occupy under a false passport. But the lady who was to accompany me there in a carriage took the precaution of visiting the house first by herself. It was thickly surrounded by spies. So many of my friends had come to inquire whether I was safe there that the suspicions of the police had been aroused. Moreover my portrait had been printed by the Third Section, and hundreds of copies had been distributed to policemen and watchmen. All the detectives who knew me by sight were looking for me in the streets; while those who did not were accompanied by soldiers and warders who had seen me during my imprisonment. The Tsar was furious that such an escape should have taken place in his capital in full daylight, and had given the order, "He *must* be found."

It was impossible to remain in St. Petersburg, and I concealed myself in country houses in its neighborhood. In company with half a dozen friends, I stayed at a village frequented at this time of the year by St. Petersburg people bent on picnicking. Then it was decided that I should go abroad. But from a foreign paper we had learned that all the frontier stations and railway termini in the Baltic provinces and Finland were closely watched by detectives who knew me by sight. So I determined to travel in a direction where I should be least expected. Armed with the passport of a friend, and accompanied by another friend, I crossed Finland, and went northward to a remote port on the Gulf of Bothnia, whence I crossed to Sweden.

After I had gone on board the steamer, and it was about to sail, the friend who accompanied me to the frontier told me the St. Petersburg news, which he had promised our friends not to tell me before. My sister Helene had been

arrested, as well as the sister of my brother's wife, who had visited me in prison once a month after my brother and his wife went to Siberia.

My sister knew absolutely nothing of the preparations for my escape. Only after I had escaped a friend had hurried to her, to tell her the welcome news. She protested her ignorance in vain; she was taken from her children, and was kept imprisoned for a fortnight. As to the sister of my brother's wife, she had known vaguely that something was to be attempted, but she had had no part in the preparations. Common sense ought to have shown the authorities that a person who had officially visited me in prison would not be involved in such an affair. Nevertheless, she was kept in prison for over two months. Her husband, a well-known lawyer, vainly endeavored to obtain her release. "We are aware now," he was told by the gendarme officers, "that she has had nothing to do with the escape; but, you see, we reported to the Emperor, on the day we arrested her, that the person who had organized the escape was discovered and arrested. It will now take some time to prepare the Emperor to accept the idea that she is not the real culprit."

I crossed Sweden without stopping anywhere, and went to Christiania, where I waited a few days for a steamer to sail for Hull. As I went to the steamer I asked myself with anxiety, "Under what flag does she sail,—Norwegian, German, English?" Then I saw floating above the stern the union jack,—the flag under which so many refugees, Russian, Italian, French, Hungarian, and of all nations, have found an asylum. I greeted that flag from the depth of my heart.

P. Kropotkin: *Memoirs of a Revolutionist*. (Used by special permission of Houghton, Mifflin & Co.)

BIG STEAMERS CRASH IN FOG

Boston, March 10.—While ploughing their way through Pollock Rip slue, off the heel of Cape Cod, about 8 o'clock this morning the steamer Horatio Hall, bound from Portland for New York, and the steamer H. F. Dimock, from New York for Boston, collided.

The Dimock cut her way into the port side of the Hall almost to the mainmast about twenty feet. Her captain, John A. Thompson, ordering full speed ahead, kept her nose in the gap and shoved the wounded vessel across the slue to the western side, where she grounded on a sand bank and filled with water.

While the Dimock's nose was acting as a collision mattress the five passengers on board the Hall, including two women, Miss Ruth Emstrom and Miss Gurli Emstrom, were swung across to the deck of the former, and some of the crew followed them.

After the Hall had settled to the bottom and her decks were about awash the remainder of the people on board her, except Capt. H. F. Jewell, First Officer James Parker of New York, the pilot and two seamen, lowered a lifeboat and rowed to the Dimock, where they were taken aboard. Capt. Jewell refused to leave his vessel and the others decided to stay with him. They are in no great danger as they have lifeboats in plenty. The revenue cutter Gresham is in the neighborhood and only at high water will they be obliged to take to the rigging.

The settling of the Hall upon the sand bank did not complete the story, for the Dimock in driving a wedgelike hole into the side of the other craft had a gash eight feet wide torn in her starboard bow, through which the water began to come almost immediately. At first the pumps handled the inflow without difficulty, but when the Dimock tried to steam up along the Cape Cod beach on her way to Boston a rising sea began to send a dangerous volume of water into the opening.

This was about noon time and soon the weight of the water in the compartment began to put the craft down by the bows as well as to give her a list to port. There was danger of the steamer sinking and Capt. Thompson had a lifeboat swung out on the davits, and into this he placed the two women taken from the Hall with Mrs. and Miss Casey of Melrose Hillside, Mass., passengers on the Dimock. They were wrapped in blankets and told to remain in the boat, so that if the vessel went down they would be saved. Orders

were also issued by Capt. Thompson to the men passengers and seamen not to take to a boat until he gave the word.

Under these trying conditions, with the Dimock in danger of plunging to the bottom any minute, Capt. Thompson crowded on all steam and made for the Orleans beach. The craft struck her keel into the sand about half a mile south of the Orleans life saving station at 2:15 o'clock this afternoon and the tooting of her whistle soon brought life-boats from the Orleans, Old Harbor, and Nauset stations.

The passengers on both vessels and the crew of the Horatio Hall were brought ashore, the officers and crew of the Dimock remaining on board to aid in wrecking operations, which will begin as soon as the tugs Underwriter and Orion and the big lighter Salvage reach the scene, these craft having started from Boston late this evening. The chances are that the Dimock will be floated again. The passengers from the vessels and the sailors brought ashore remained in Orleans to-night and will proceed to their destinations tomorrow.

The Horatio Hall sailed from Portland at 10:30 last night, having 700 tons of freight on board and five passengers: Miss Ruth Emstrom and Miss Gurli Emstrom of Brooklyn, M. E. Marks of 561 Broadway, New York; W. S. Marie of Biddeford, Me., and Michael Dolan of New York. It was raining and thick weather when the boat left Portland, and going across the mouth of Massachusetts Bay the conditions did not improve. A thick fog prevailed as the steamer made her way down outside Cape Cod, and at daylight the lookouts were doubled and fog signals were blown at regular intervals. The Hall had just passed the gas buoy in Pollock Rip slue when the whistle of another steamer was heard. The Hall veered a little to the westward, as the sound of the approaching steamer indicated that she was headed directly for her. Then in less time than it takes to tell it the Dimock burst out from the fog into full view and drove her bow deep into the side of the Hall.

Mr. Marks, who was dressing himself in his stateroom when the steamers came together, said there was no distinct shock from the collision, the sensation being rather one of grinding than anything else, as the Dimock bored her way

through the hull. He ran on deck and saw what occurred. There was shouting and yelling aboard both vessels, but the seamen were cool and their officers gave orders calmly.

The steward of the Hall ran below and passed up the two women passengers who were lightly clad, having just tumbled from their berths. They were quickly passed by the sailors across to the deck of the Dimock and the male passengers clambered over also. Meantime, the Hall was being shoved sideways across the slue, heeling to starboard until her hull brought up against a sand bank. The Dimock then backed away and efforts were made to patch up the hole in her bow.

When the Hall was slowly sinking, the wireless man on board her began sending out the "C Q D" call, which was picked up by a number of Government stations along the coast. The revenue cutter Gresham was in Vineyard Sound on her way to the freight steamer Massachusetts ashore to the westward and got this message, as did other stations: "Horatio Hall in collision with H. F. Dimock at 7 A. M. Ship cut below waterline. Is on the bottom, send assistance at once."

The Gresham at once changed her course to the eastward, but by this time the wireless on the Hall was put out of commission by the rising water in her hold, and therefore there was no way for the Gresham to ascertain just where the steamer had sunk. On shore the various wireless stations tried to get the same information, but amateur operators from New London began filling the atmosphere with electric waves and there was such a confusion of dots and dashes aloft that no one was able to get any news as to the whereabouts of the Hall, so that it was not until the Dimock landed some people on the Orleans beach that this became known. Later the Gresham got a message from a land station and proceeded to Pollock Rip.

Boston, March 11.—In the opinion of Capt. John A. Thompson of the Metropolitan Line steamer H. F. Dimock that craft had only about five minutes more to float when she shoved her nose on the Orleans beach yesterday afternoon, six hours after sinking the Horatio Hall in Pollock Rip slue.

Capt. Thompson came ashore from his vessel this morning and related his experiences. He said that after pushing the

Hall upon the sand bank and transferring her passengers he backed away and anchored to repair damages.

"I patched the Dimock's bows," said Capt. Thompson, "with canvas as well as I could besides shifting the cargo to list the Dimock to port to get the hole in her starboard bow out of water. I filled our aft ballast tanks to set the Dimock down by the stern and raise her bow out of water.

"I raised the holes in the Dimock's bows above the water line and thought the vessel seaworthy. Then I got up anchor when the fog lifted, and as the sea was rising got to leeward of the Hall so her men who were alongside her in the boats could drop down to us, and we took them aboard. Then I got under way and started north.

"I considered, after an investigation, sounding the bilges and with a man stationed at each bulkhead, that the Dimock was seaworthy, and felt the safest course was to proceed to the northward, as I had a southerly wind. I got well under the shore and proceeded under moderate speed, but at the end of an hour's run from the Pollock Rip lightship the chief engineer reported a little water showing in the sounding tube of the forehold.

"I ordered off the hatches and found there was seven feet of water in the forehold, and as the forward bulkhead was holding it showed there was an unsuspected hole somewhere in the bottom. I had over 100 people on board at this time, and as I had only two lifeboats of my own and one of the Hall, partly filled with water, towing astern, I headed the Dimock for the nearest land at full speed.

"Before we got into seven fathoms the ship was five feet down by the head and was listed to port 30 degrees. The Dimock went on the beach easily, and with all these people aboard it was a relief to hear her hit the sand.

"We couldn't have lived five minutes longer. If we hadn't struck the beach when we did we would undoubtedly all have gone to the bottom, and then there would have been a vastly different story to tell.

"It was as close a shave as I care to face again, and it seems miraculous that no lives were lost."

From the *New York Sun*, March 10 and 11, 1909.

DEATH OF THOMAS BECKET

No one knows what passed at Bayeux during the first weeks of that December. King and council, knights and nobles, squires and valets must have talked of little else but Becket and his doings. The pages at Winchester laid their hands on their dagger-hilts when the priest delivered his haughty message. The peers and gentlemen who surrounded Henry at Bayeux are not likely to have felt more gently as each day brought news from England of some fresh audacity. At length a few days before Christmas, the three bishops arrived. Two were under the curse, and could not be admitted into the king's presence. The Archbishop of York, being only suspended, carried less contamination with him. At a council the archbishop was introduced, and produced Alexander's letters. From these it appeared not only that he and the other bishops were denounced by name, but that every person who had taken any part in the young king's coronation was by implication excommunicated also. It is to be remembered that the king had received a positive sanction for the coronation from Alexander; that neither he nor the bishops had received the prohibition till the ceremony was over; and that the prohibitory letter, which it is at least possible that the king would have respected, had been kept back by Becket himself.

The Archbishop of York still advised forbearance, and an appeal once more to Rome. The pope would see at last what Becket really was, and would relieve the country of him. But an appeal to Rome would take time, and England meanwhile might be in flames. "By God's eyes," said the king, "if all are excommunicated who were concerned in the coronation, I am excommunicated also." Some one (the name of the speaker is not mentioned) said that there would be no peace while Becket lived. With the fierce impatience of a man baffled by a problem which he has done his best to solve, and has failed through no fault of his own, Henry is reported to have exclaimed: "Is this varlet that I loaded with kindness, that came first to court to me on a lame mule, to insult me and my children, and take my crown from me? What cowards have I about me, that no one will deliver me from this low-

born priest!" It is very likely that Henry used such words. The greatest prince that ever sat on a throne, if tried as Henry had been, would have said the same; and Henry had used almost the same language to the bishops at Chinon in 1166. But it is evident that much is still untold. These passionate denunciations can be no more than the outcome of long and ineffectual deliberation. Projects must have been talked over and rejected; orders were certainly conceived which were to be sent to the archbishop, and measures were devised for dealing with him short of his death. He was to be required to absolve the censured bishops. If he refused, he might be sent in custody to the young king, he might be brought to Normandy, he might be exiled from the English dominions, or he might be imprisoned in some English castle. Indications can be traced of all these plans; and something of the kind would probably have been resolved upon, although it must have been painfully clear also that, without the pope's help, none of them would really meet the difficulty. But the result was that the knights about the court, seeing the king's perplexity, determined to take the risk on themselves, and deliver both him and their country. If the king acted, the king might be excommunicated, and the empire might be laid under interdict, with the consequences which every one foresaw. For their own acts the penalty would but fall upon themselves. They did not know, perhaps, distinctly what they meant to do, but something might have to be done which the king must condemn if they proposed it to him.

But being done unknown,
He would have found it afterwards well done.

Impetuous loyalty to the sovereign was in the spirit of the age.

Among the gentlemen about his person whom Henry had intended to employ, could he have resolved upon the instructions which were to be given to them, were four knights of high birth and large estate—Sir Reginald Fitzurse, of Somersetshire, a tenant in chief of the Crown, whom Becket himself had originally introduced into the court; Sir Hugh de Morville, custodian of Knaresborough Castle, and justiciary of Northumberland; Sir William de Tracy, half a Saxon,

with royal blood in him; and Sir Richard le Breton, had been moved to volunteer in the service by another instance of Becket's dangerous meddling. Le Breton was a friend of the king's brother William, whom the archbishop had separated from the lady to whom he was about to be married, on some plea of consanguinity. Sir William de Mandeville and others were to have been joined in the commission. But these four chose to anticipate both their companions and their final orders, and started alone. Their disappearance was observed. An express was sent to recall them, and the king supposed that they had returned. But they had gone by separate routes to separate ports. The weather was fair for the season of the year, with an east wind perhaps; and each had found a vessel without difficulty to carry him across the Channel. The rendezvous was Sir Ranulf de Broc's castle of Saltwood, near Hythe, thirteen miles from Canterbury.

The archbishop meanwhile had returned from his adventurous expedition. The young king and his advisers had determined to leave him no fair cause of complaint, and had sent orders for the restoration of his wine and the release of the captured seamen; but the archbishop would not wait for the State to do him justice. On Christmas eve he was further exasperated by the appearance at the gate of his palace of one of his sumpter mules, which had been brutally mutilated by Sir Ranulf de Broc's kinsman Robert. "The viper's brood," as Herbert de Bosham said, "were lifting up their heads. The hornets were out. Bulls of Bashan compassed the archbishop round about." The Earl of Cornwall's warning had reached him, but "fight, not flight," was alone in his thoughts. He, too, was probably weary of the strife, and may have felt that he would serve his cause more effectually by death than by life. On Christmas day he preached in the cathedral on the text "Peace to men of good will." There was no peace, he said, except to men of good will. He spoke passionately of the trials of the Church. As he drew towards an end he alluded to the possibility of his own martyrdom. He could scarcely articulate for tears. The congregation were sobbing round him. Suddenly his face altered, his tone

changed. Glowing with anger, with the fatal candles in front of him, and in a voice of thunder, the solemn and the absurd strangely blended in the overwhelming sense of his own wrongs, he cursed the intruders into his churches; he cursed Sir Ranulf de Broc; he cursed Robert de Broc for cutting off his mule's tail; he cursed by name several of the old king's most intimate councillors who were at the court in Normandy. At each fierce imprecation he quenched a light, and dashed down a candle. "As he spoke," says the enthusiastic Herbert, "you saw the very beast of the prophet's vision, with the face of a lion and the face of a man." He had drawn the spiritual sword, as he had sworn that he would. So experienced a man of the world could not have failed to foresee that he was provoking passions which would no longer respect his office, and that no rising in England would now be in time to save him. He was in better spirits, it was observed, after he had discharged his anathema. The Christmas festival was held in the hall. Asceticism was a virtue which was never easy to him. He indulged his natural inclinations at all permitted times, and on this occasion he ate and drank more copiously than usual.

The next day Becket received another warning that he was in personal danger. He needed no friends to tell him that. The only attention which he paid to these messages was to send his secretary Herbert and his crossbearer, Alexander Llewellyn, to France, to report his situation to Lewis and to the Archbishop of Sens. He told Herbert at parting that he would see his face no more.

So passed at Canterbury Saturday, Sunday, and Monday, the 26th, 27th, and 28th of December. On that same Monday afternoon the four knights arrived at Saltwood. They were expected, for Sir Ranulf with a party of men-at-arms had gone to meet them. There on their arrival they learned the fresh excommunications which had been pronounced against their host and against their friends at the court. The news could only have confirmed whatever resolutions they had formed.

On the morning of the 29th they rode with an escort of horse along the old Roman road to Canterbury. They

halted at St. Augustine's Monastery, where they were entertained by the abbot elect, Becket's old enemy, the scandalous Clarembald. They, perhaps, dined there. At any rate they issued a proclamation bidding the inhabitants remain quiet in their houses, in the king's name, and then, with some of Clarembald's armed servants in addition to their own party, they went on to the great gate of the archbishop's palace. Leaving their men outside, the four knights alighted and entered the court. They unbuckled their swords, leaving them at the lodge, and, throwing gowns over their armor, they strode across to the door of the hall. Their appearance could hardly have been unexpected. It was now between three and four o'clock in the afternoon. They had been some time in the town, and their arrival could not fail to have been reported. The archbishop's midday meal was over. The servants were dining on the remains, and the usual company of mendicants were waiting for their turn. The archbishop had been again disturbed at daybreak by intimation of danger. He had advised any of his clergy who were afraid, to escape to Sandwich; but none of them had left him. He had heard mass as usual. He had received his customary floggings. At dinner he had drunk freely, observing, when some one remarked upon it, that he that had blood to lose needed wine to support him. Afterwards he had retired into an inner room with John of Salisbury, his chaplain Fitzstephen, Edward Grim of Cambridge, who was on a visit to him, and several others, and was now sitting in conversation with them in the declining light of the winter afternoon till the bell should ring for vespers.

The knights were recognized, when they entered the hall, as belonging to the king's court. The steward invited them to eat. They declined, and desired him to inform the archbishop that they had arrived with a message from the Court. This was the first communication which the archbishop had received from Henry since he had used his name so freely to cover acts which, could Henry have anticipated them, would have barred his return to Canterbury forever. The insincere professions of peace had covered an intention of provoking a rebellion. The truth was now plain. There was no

room any more for excuse or palliation. What course had the king determined on?

The knights were introduced. They advanced. The archbishop neither spoke nor looked at them, but continued talking to a monk who was next him. He himself was sitting on a bed. The rest of the party present were on the floor. The knights seated themselves in the same manner, and for a few moments there was silence. Then Becket's black, restless eye glanced from one to the other. He slightly noticed Tracy; and Fitzurse said a few unrecorded sentences to him, which ended with "God help you!" To Becket's friends the words sounded like insolence. They may have meant no more than pity for the deliberate fool who was forcing destruction upon himself.

Becket's face flushed. Fitzurse went on, "We bring you the commands of the King beyond the sea; will you hear us in public or in private?" Becket said he cared not. "In private, then," said Fitzurse. The monks thought afterwards that Fitzurse had meant to kill the archbishop where he sat. If the knights had entered the palace, thronged as it was with men, with any such intention, they would scarcely have left their swords behind them. The room was cleared, and a short altercation followed, of which nothing is known save that it ended speedily in high words on both sides. Becket called in his clergy again, his lay servants being excluded, and bade Fitzurse go on. "Be it so," Sir Reginald said. "Listen then, to what the King says. When the peace was made, he put aside all his complaints against you. He allowed you to return, as you desired, free to your see. You have now added contempt to your other offenses. You have broken the treaty. You have allowed your pride to tempt you to defy your lord and master to your own sorrow. You have censured the bishops by whose administration the Prince was crowned. You have pronounced an anathema against the King's ministers, by whose advice he is guided in the management of the empire. You have made it plain that if you could you would take the Prince's crown from him. Your plots and contrivances to attain your ends are notorious to all men. Say, then, will you attend us to the King's

presence, and there answer for yourself? For this we are sent."

The archbishop declared that he had never wished any hurt to the Prince. The King had no occasion to be displeased if crowds came about him in the towns and cities, after having been so long deprived of his presence. If he had done any wrong he would make satisfaction, but he protested against being suspected of intentions which had never entered his mind.

Fitzurse did not enter into an altercation with him, but continued: "The King commands further that you and your clerks repair without delay to the young King's presence, and swear allegiance, and promise to amend your faults."

The archbishop's temper was fast rising. "I will do whatever may be reasonable," he said, "but I tell you plainly, the King shall have no oaths from me, nor from any one of my clergy. There has been too much perjury already. I have absolved many, with God's help, who had perjured themselves. I will absolve the rest when he permits."

"I understand you to say that you will not obey?" said Fitzurse, and went on in the same tone: "The King commands you to absolve the bishops whom you have excommunicated without his permission" (*absque licentiâ suâ*).

"The Pope sentenced the bishops," the archbishop said. "If you are not pleased, you must go to him. The affair is none of mine."

Fitzurse said it had been done at his instigation, which he did not deny; but he proceeded to reassert that the King had given his permission. He had complained at the time of the peace of the injury which he had suffered in the coronation, and the King had told him that he might obtain from the Pope any satisfaction for which he liked to ask.

If this was all the consent which the King had given, the pretense of his authority was inexcusable. Fitzurse could scarce hear the archbishop out with patience. "Ay, ay!" said he; "will you make the King out to be a traitor, then? The King gave you leave to excommunicate the bishops when they were acting by his own order! It is more than we can bear to listen to such monstrous accusations."

John of Salisbury tried to check the archbishop's imprudent tongue, and whispered to him to speak to the knights in private; but when the passion was on him, no mule was more ungovernable than Becket. Drawing to a conclusion, Fitzurse said to him: "Since you refuse to do any one of those things which the King requires of you, his final commands are that you and your clergy shall forthwith depart out of this realm and out of his dominions, never more to return. You have broken the peace, and the King cannot trust you again."

Becket answered wildly that he would not go—never again would he leave England. Nothing but death should now part him from his church. Stung by the reproach of ill-faith, he poured out the catalogue of his own injuries. He had been promised restoration, and instead of restoration he had been robbed and insulted. Ranulf de Broc had laid an embargo on his wine. Robert de Broc had cut off his mule's tail; and now the knights had come to menace him.

De Morville said that if he had suffered any wrong he had only to appeal to the Council, and justice would be done.

Becket did not wish for the Council's justice. "I have complained enough," he said; "so many wrongs are daily heaped upon me that I could not find messengers to carry the tale of them. I am refused access to the court. Neither one king nor the other will do me right. I will endure it no more. I will use my own powers as archbishop, and no child of man shall prevent me."

"You will lay the realm under interdict, then, and excommunicate the whole of us?" said Fitzurse.

"So God help me," said one of the others, "he shall not do that. He has excommunicated over-many already. We have borne too long with him."

The knights sprang to their feet, twisting their gloves and swinging their arms. The archbishop rose. In the general noise words could no longer be accurately heard. At length the knights moved to leave the room, and addressing the archbishop's attendants, said, "In the King's name we command you to see that this man does not escape."

"Do you think I shall fly, then?" cried the archbishop.

"Neither for the King nor for any living man will I fly. You cannot be more ready to kill me than I am to die . . . Here you will find me," he shouted, following them to the door as they went out, and calling after them. Some of his friends thought that he had asked De Morville to come back and speak quietly with him, but it was not so. He returned to his seat, still excited and complaining.

"My lord," said John of Salisbury to him, "it is strange that you will never be advised. What occasion was there for you to go after these men and exasperate them with your bitter speeches? You would have done better, surely, by being quiet and giving them a milder answer. They mean no good, and you only commit yourself."

The archbishop sighed, and said, "I have done with advice. I know what I have before me."

It was four o'clock when the knights entered. It was now nearly five; and unless there were lights the room must have been almost dark. Beyond the archbishop's chamber was an anteroom, beyond the anteroom the hall. The knights, passing through the hall into the quadrangle, and thence to the lodge, called their men to arms. The great gate was closed. A mounted guard was stationed outside, with orders to allow no one to go out or in. The knights threw off their cloaks and buckled on their swords. This was the work of a few minutes. From the cathedral tower the vesper bell was beginning to sound. The archbishop had seated himself to recover from the agitation of the preceding scene, when a breathless monk rushed in to say that the knights were arming. "Who cares? Let them arm," was all that the archbishop said. His clergy was less indifferent. If the archbishop was ready for death, they were not. The door from the hall into the court was closed and barred, and a short respite was thus secured. The intention of the knights, it may be presumed, was to seize the archbishop and carry him off to Saltwood or to De Morville's castle at Knaresborough, or perhaps to Normandy. Coming back to execute their purpose, they found themselves stopped by the hall door. To burst it open would require time; the anteroom between the hall and the archbishop's apartments opened by an oriel window and an out-

side stair into a garden. Robert de Broc, who knew the house well, led the way to it in the dark. The steps were broken, but a ladder was standing against the window, by which the knights mounted, and the crash of the falling casement told the fluttered group about the archbishop that their enemies were upon them. There was still a moment. The party who entered by the window, instead of turning into the archbishop's room, first went into the hall to open the door and admit their comrades. From the archbishop's room a second passage, little used, opened into the northwest corner of the cloister, and from the cloister there was a way into the north transept of the cathedral. The cry was "To the church! To the church!" There at least there would be immediate safety.

The archbishop had told the knights that they would find him where they left him. He did not choose to show fear; or he was afraid, as some thought, of losing his martyrdom. He would not move. The bell had ceased. They reminded him that vespers had begun, and that he ought to be in the cathedral. Half yielding, half resisting, his friends swept him down the passage into the cloister. His cross had been forgotten in the haste. He refused to stir till it was fetched and carried before him as usual. Then only, himself incapable of fear, and rebuking the terror of the rest, he advanced deliberately to the door into the south transept. His train was scattered behind him, all along the cloister from the passage leading out of the palace. As he entered the church, cries were heard, from which it became plain that the knights had broken into the archbishop's room, had found the passage, and were following him. Almost immediately Fitzurse, Tracy, De Morville, and Le Breton were discerned in the dim light, coming through the cloister in their armor, with drawn swords, and axes in their left hands. A company of men-at-arms was behind them. In front they were driving before them a frightened flock of monks.

From the middle of the transept in which the archbishop was standing, a single pillar rose into the roof. On the eastern side of it opened a chapel of St. Benedict, in which were the tombs of several of the old primates. On the west, running of course parallel to the nave, was a Lady chapel. Behind

the pillar, steps led up into the choir, where voices were already singing vespers. A faint light may have been reflected into the transept from the choir tapers, and candles may perhaps have been burning before the altars in the two chapels; of light from without through the windows at that hour there could have been none. Seeing the knights coming on, the clergy who had entered with the archbishop closed the door and barred it. "What do you fear?" he cried in a clear, loud voice. "Out of the way, you coward! the Church of God must not be made a fortress." He stepped back and reopened the door with his own hands, to let in the trembling wretches who had been shut out among the wolves. They rushed past him, and scattered in the hiding places of the vast sanctuary, in the crypt, in the galleries, or behind the tombs. All, or almost all, even of his closest friends,—William of Canterbury, Benedict, John of Salisbury himself,—forsook him to shift for themselves, admitting frankly that they were unworthy of martyrdom. The archbishop was left alone with his chaplain Fitzstephen, Robert of Merton, his old master, and Edward Grim, the stranger from Cambridge,—or perhaps with Grim only, who says that he was the only one who stayed, and was the only one certainly who showed any sign of courage. A cry had been raised in the choir that armed men were breaking into the cathedral. The vespers ceased; the few monks assembled left their seats and rushed to the edge of the transept, looking wildly into the darkness.

The archbishop was on the fourth step beyond the central pillar ascending into the choir, when the knights came in. The outline of his figure may have been just visible to them, if light fell upon it from candles in the Lady chapel. Fitzurse passed to the right of the pillar, De Morville, Tracy, and Le Breton to the left. Robert de Broc, and Hugh Mauclore, another apostate priest, remained at the door by which they entered. A voice cried, "Where is the traitor? Where is Thomas Becket?" There was silence; such a name could not be acknowledged. "Where is the archbishop?" Fitzurse shouted. "I am here," the archbishop replied, descending the steps, and meeting the knights full in the face. "What do you want with me? I am not afraid of your swords. I will not

do what is unjust." The knights closed round him. "Absolve the persons whom you have excommunicated," they said, "and take off the suspensions." "They have made no satisfaction," he answered; "I will not." "Then you shall die as you have deserved," they said.

They had not meant to kill him—certainly not at that time and in that place. One of them touched him on the shoulder with the flat of his sword, and hissed in his ears, "Fly, or you are a dead man." There was still time; with a few steps he would have been lost in the gloom of the cathedral, and could have concealed him in any one of a hundred hiding-places. But he was careless of life, and he felt that his time was come. "I am ready to die," he said. "May the Church through my blood obtain peace and liberty! I charge you in the name of God that you hurt no one here but me."

The people from the town were now pouring into the cathedral; De Morville was keeping them back with difficulty at the head of the steps from the choir, and there was danger of a rescue. Fitzurse seized him, meaning to drag him off as a prisoner. He had been calm so far; his pride rose at the indignity of an arrest. "Touch me not, thou abominable wretch!" he said, wrenching his cloak out of Fitzurse's grasp. "Off, thou pander, thou!" Le Breton and Fitzurse grasped him again, and tried to force him upon Tracy's back. He grappled with Tracy and flung him to the ground, and then stood with his back against the pillar, Edward Grim supporting him. Fitzurse, stung by the foul epithet which Becket had thrown at him, swept his sword over him and dashed off his cap. Tracy, rising from the pavement, struck direct at his head. Grim raised his arm and caught the blow. The arm fell broken, and the one friend found faithful sank back disabled against the wall. The sword with its remaining force wounded the archbishop above the forehead, and the blood trickled down his face. Standing firmly, with his hands clasped, he bent his neck for the death-stroke, saying in a low voice, "I am prepared to die for Christ and for his Church." These were his last words. Tracy again struck him. He fell forward upon his knees and hands. In that position Le Breton dealt him a blow which severed the scalp

from the head and broke the sword against the stone, saying, "Take that for my Lord William." De Broc or Mauclerc—the needless ferocity was attributed to both of them—strode forward from the cloister door, set his foot on the neck of the dead lion, and spread the brains upon the pavement with his sword's point. "We may go," he said; "the traitor is dead, and will trouble us no more."

Such was the murder of Becket, the echoes of which are still heard across seven centuries of time, and which, be the final judgment upon it what it may, has its place among the most enduring incidents of English history. Was Becket a martyr, or was he justly executed as a traitor to his sovereign? Even in that supreme moment of terror and wonder, opinions were divided among his own monks. That very night Grim heard one of them say, "He is no martyr, he is justly served." Another said—scarcely feeling, perhaps, the meaning of the words,—“He wished to be king and more than king. Let him be king, let him be king.” Whether the cause for which he died was to prevail, or whether the sacrifice had been in vain, hung on the answer which would be given to this momentous question. In a few days or weeks an answer came in a form to which in that age no rejoinder was possible; and the only uncertainty which remained at Canterbury was whether it was lawful to use the ordinary prayers for the repose of the dead man's soul, or whether, in consequence of the astounding miracles which were instantly worked by his remains, the Pope's judgment ought not to be anticipated, and the archbishop ought not to be at once adored as a saint in heaven.

James Anthony Froude: *Short Studies on Great Subjects*.

INCIDENTS IN THE CAREER OF LAZARILLO DE TORMES

At that time there came to lodge at the inn a blind man who, seeing that I would do to lead him, asked for me from my mother. She gave me to him, saying that I was the son of a good father, and boasting that he had been killed at the Island of Gelves. She told the blind man that she trusted in

God that I would not turn out a worse man than my father, and she begged him to treat me well and look after me, as I was an orphan. He answered that he would do so, and that he received me not as his servant but as his son. Thus it was that I began to serve and to lead my new master. We were in Salamanca for some days, but, as the earnings were not to my master's liking, he determined to go somewhere else. When we were about to depart, I went to see my mother, and, both weeping, she gave me her blessing and said, "I shall see you no more. Strive to be good, and may God direct your ways. You have been brought up, and are now put with a good master. Farewell!" And so I went away to my master who was waiting for me.

We went out of Salamanca and came to the bridge. There is, at the entrance of it, an animal of stone which almost has the shape of a bull. The blind man told me to go near this animal, and being there, he said, Lazaro, put your ear against this bull, and you will hear a great noise inside." I did so, like a simpleton, believing it to be as he said. When he felt that my head was against the stone, he raised his hand and gave me a tremendous blow against the devil of a bull, so that I felt the pain for more than three days. Then he said to me, "This will teach you that a blind man's boy ought to be one point more knowing than the devil himself;" and he laughed heartily at his joke. It seemed to me that in an instant I awoke from the simplicity in which I had reposed from childhood. I said to myself, "This man says truly that it behooves me to keep my eyes open, for I am alone and have to think for myself."

We set out on our road, and in a very few days I showed myself to be sprightly, which pleased the blind man, and he said, "I can give you neither gold nor silver, but I can teach you much in the ways of getting a livelihood." And it turned out that after a few days he showed me many things, and being blind himself, he enlightened and guided me in the ways of life. I mention these trifles to your Honor to show how much knowledge men must have when they are down, and to keep from falling when they are exalted.

Speaking of the good there was in my blind man, your

Honor must know that since God created the world He has not made a being more astute and sagacious. In his own line he was unequalled. He knew a hundred or more prayers of the choir, he recited in a low and very tuneful voice, he put on a devout and very humble countenance when he recited, without making faces or gestures as others usually do. Besides this he had a hundred other ways and means of getting money. He knew how to make prayers for different occasions, and in the matter of medicine he said that Galen himself did not possess half his knowledge for curing tooth-aches and fainting fits. Finally, no one mentioned what pain or illness he was suffering from, but he told him at once—do this, you should do that, gather such a herb, take such a root. In this way he went with all the world after him, especially the women. They believed whatever he said, and from them he drew great profits by the arts I have described, for he gained more in a month than a hundred other blind men would in a year. I also desire your Honor should know that, in spite of all he acquired and had, I never met a man so avaricious and stingy, insomuch that he nearly killed me with hunger, depriving me of the necessities of life.

I tell the truth, that if, by way of subtlety and cunning, I had not found a remedy, I should many times have succumbed to starvation. With all his knowledge and experience, I managed so well that, oftener than not, I got the best of it. On account of these matters there were infernal rows between us, of which I will relate some—but not all.

He carried the bread, and all the rest of his things, in a linen knapsack, closing the mouth with an iron chain having a padlock and key. He put in and took out his things himself, using great vigilance, and he kept such a close account that there was not a man in all the world that could have taken so much as a crumb without his knowing it. Well, I had to take the lazar's allowance which he gave me. It was all despatched in less than two mouthfuls. After he had locked the bag and was not looking out, thinking that I was attending to other things, by a little unstitching I often opened one side of the bag and sewed it up again; bleeding

the avaricious knapsack not only of bread but of good pieces of bacon and sausage. Thus I watched for convenient times to make up for the infernal wrong that the wicked blind man inflicted on me.

All that I could pilfer and steal I carried in half "blancas." When they paid him for saying prayers for them, they gave him a whole "blanca." But as he could not see, I had got it in my mouth, and put a half blanca in its place, before his hand could reach it, quick as he was, so that he only got half-price. The evil-minded blind man complained when he found that it was not a whole blanca. He said to me: "How the devil is it that since you have been with me they only give half blancas, and before it used to be a whole blanca or even a "maravedi" that they gave me? The ill-luck has come with you." So he shortened up the prayers and did not give them more than half, ordering me to remind him to stop by pulling his sleeve. Then he began to cry out that they had called for such and such a prayer from him, such as he used to recite, and that he had given it.

The blind man used to have a small jug of wine near him when he dined, and quick as thought I gave it silent kisses when I put it down for him. But it was not long before he noticed the loss in what he drank, so he never let the jug out of his hand, but always kept it by him. However, he had no magnet to point to what went on, while I had a long oaten straw which I prepared for this need of mine. Slipping it into the mouth of the jug I sucked up the wine to my heart's content. The old rascal, being very astute, suspected something. So he put the jug between his knees and, covering the mouth with his hand, drank in security. Seeing the wine go I craved for it. The straw being no longer of any avail, I hit upon another plan. I succeeded in making a tiny hole in the bottom of the jug, and stopped it with a small piece of wax. When dinner-time came I pretended to be cold, and got between the old man's legs, to warm myself at the poor little light we had. With the same light I melted the wax, and very soon a little fountain began to drain into my mouth, which I placed so that I should not lose a drop. When the poor old man wanted to drink, he got nothing.

His astonishment was expressed in curses, devoting the wine and the jug to the devil. "You cannot think that I have been drinking, uncle!" I said, "for you have not let the jug out of your hand." But he gave the jug so many twists and turns that at last he found the hole. He said nothing. Next day I was sucking at the hole as usual, thinking no evil, and little dreaming of what he was getting ready for me. I was seated on the ground, taking in those delicious draughts, my face turned up to heaven, my eyes half closed the better to enjoy the toothsome liquor, when the wicked blind man took his revenge. He raised the jug with both hands, and, with all his might, sent it crashing down on my mouth. Poor Lazaro was quite off his guard, being careless and joyous as at other times. Truly it seemed to me as if the sky and all that was in it had fallen upon me!

From that time I wished evil to the cruel blind man, and, although he was kind to me afterward and cured me, I saw very well that he enjoyed my cruel punishment. He washed the bruises and places torn by the bits of the broken jug, but he smiled as he did so, saying, "What would you have, Lazaro? If I wish you ill I cure you and restore you to health," with other jokes that were not to my taste, when I had only half recovered from my wounds. I now wanted to free myself from him, thinking that a few more such blows might free him from me. He was not much inclined to see to my health and welfare, and even if I had wished to forgive him the blow with the jug, his evil treatment of me from that time would have prevented it.

Without cause or reason, the malignant blind man was always beating me and knocking me about. If any one asked him why he treated me so badly, he told the story of the jug, adding: "Think you that my boy is a little innocent? Well, listen and judge whether the devil himself could have played such tricks. Who could believe that such a small boy could be so depraved." Then they said: "Chastize him in God's name," and he never did anything else.

So I led him by the worst ways, seeking to do him harm, taking him over stony places and into mud. He always beat me on the back of my head, so that it was covered with bruises,

and although I cried out that I did not do it on purpose, but only because there was no better road, he did not believe me, such was the astuteness of the old ruffian.

In order that your Honor may judge of the cleverness of this knowing old man I will relate one thing out of many that happened while I was with him. When we left Salamanca his intention was to go to Toledo, for he said that the people there were richer, though not very charitable. He repeated this saying, "The hard man gives more than the penniless man." We took the road by the best places, where we were well received. It happened that we came to a place called Almorax at the time of the vintage. A grape-gatherer gave us a bunch out of charity. As the baskets are knocked about, and the grapes at that time are very hard, the blind man kept the bunch in his hand, and to content me, he determined to have a banquet with it, instead of putting it in his bag. For he had given me on that day many blows and kicks.

We sat down in an enclosed place and he said: "Now I am going to treat you with liberality. We will both eat this bunch of grapes in equal shares, and it shall be in this way. You take one and I will take another. You must only take one at a time, and I will take another until it is finished. In this way there can be no trick." So we began. At the second turn the old traitor began to take two at a time, and as he had broken the agreement I thought that I ought to do the same. Not content to do as he did, I began to take three at a time. When the bunch was finished, he sat for some time with the stalk in his hand. Then he said: "Lazaro, you have deceived me. I would swear to God that you have been eating three at a time." "I did not eat so," I declared. "Why do you suspect me?" Would you know how I am certain that you took three at a time?" he replied. "It is because when I began to take two at a time you said nothing."

Though only a boy I noted the cleverness of the old man. But to avoid being dull I will leave out many things both curious and remarkable that happened to me while I was with my first master, for I wish to come to the leave-taking, and with that there is an end of him.

We were at Escalona, a town belonging to the Duke of that name, lodging at an inn.

The blind man gave me a piece of sausage to roast. When the sausage had been basted and the toasted bread on which the grease was poured had been eaten, he took a maravedi out of his bag and sent me to fetch wine from a tavern. The devil put the temptation before my eyes, which, as they say, is how a thief is made. There was a long piece of colewort on the fire, which, being unfit for the pot, ought to have been thrown away. There was nobody but the blind man and myself, and I became very greedy under the delicious smell of the sausage. I only thought of present enjoyment, without considering what might happen afterwards, so when the blind man took the money out of his bag, I took the sausage, and quickly put the colewort to be cooked in its place. When my master handed the money to me I took it, and went for the wine, not failing to eat the sausage.

When the sinful blind man found the colewort in the pot, of which he knew nothing, he thought it was the sausage and bit it. Then he said, "What is this, Lazaro?" I said "Had I not gone for the wine? Some one else has been here and has done it for fun." "No! No!" he cried, "that is impossible, for I have never let the pan out of my hand." I then turned to swear, and swore again, that it was not me. But it availed me nothing. From the cunning of the cursed blind man nothing could be hidden.

O Lord! who would not rather have been buried than go through that misery? The rage of the perverse old man was such that if people had not been drawn there by the noise, he would not have left me alive. They took me from him, leaving his few hairs in my hands, and his face and throat all scratched, which he deserved for his cruel treatment of me.

The blind man related all my misfortunes over and over again, including the story of the jug and of the bunch of grapes. The laughter was so loud that all the passers-by came in to see the fun; for the old wretch told the stories of my misfortunes so well that even I, ill-treated as I was, could not help half joining in the laughter. Remembering

my troubles there came a weakness upon me. But my stomach recovered, and the landlady of the inn, with others who were present, washed my face and throat with the wine that had been brought to drink. This enraged the wicked blind man, who declared that I would cost him more wine with my washings in one year, than he could drink in two.

"Lazaro," he said, "you owe more to the wine than to your father. He got you once, but the wine has brought you to life several times." Then he counted how many times he had torn and bruised my face and afterwards cured it with wine. "If there is a man in the world who ought to be lucky with wine," he added, "it is you."

Those who were washing me laughed a good deal at what the old man said, though I dissented. However, the prognostications of the blind rascal did not turn out false, and afterwards I often thought of that man, who certainly had the spirit of prophecy. The evil things he did to me made me sad, though I paid him back, as your Honor will presently hear.

Seeing all this, and how the blind man made me a laughing-stock, I determined to leave him at all hazards. This resolution was always in my mind, and the last game he played me confirmed it. On another day we left the town to seek alms. It had rained a great deal in the night, and as it continued to rain in the day-time, we got under some arcades in the village where we were, so as to keep out of the wet. Night was coming on, and the rain did not cease. The blind man said to me, "Lazaro, this rain is very persistent, and as the night closes in it will not cease, so we will make for the inn in good time. To go there we have to cross a stream which will have become swollen by the heavy rain." I replied, "Uncle, the stream is now very broad, but if you like I can take you to a place where we can get across without being wet, for it becomes much narrower, and by jumping we can clear it." This seemed good advice, so he said, "You are discreet and you shall take me to that place where the stream becomes so narrow, for it is winter time, and a bad thing to get our feet wet." Seeing that things were going as I wished, I took him out of the arcade, and placed him just in front

of a stone pillar that stood in the square. Then I said to him, "Uncle, this is the narrowest part of the stream."

As the rain continued and he was getting wet, we were in a hurry to get shelter from the water that was falling upon us. The principal thing was (seeing that God blinded my understanding in that hour) to be avenged. The old man believed in me and said, "Put me in the right place while you jump over the stream." So I put him just in front of the pillar, and placed myself behind it. I then said, "Jump with all your might so as to clear the stream." I had hardly finished speaking, when the poor old man, balancing himself like a goat, gave one step backwards, and then sprang with all his force. His head came with such a noise against the pillar that it sounded like a great calabash. He fell down half dead. I left him among several people who ran to help him, while I made for the gate of the town at a sharp trot, so that before nightfall I might be in Torrijos, not knowing nor caring what afterwards happened to my blind man.

Don Diego de Mendoza: *Lazarillo de Tormes*. (Translated by Sir Clements Markham.)

AT NORTHANGER ABBEY

[Catherine Morland, a young lady very well-read in the romantic fiction of her day (1798), is about to pay her first visit to Northanger Abbey, the home of General Tilney. She is driving to the Abbey with Henry Tilney, the General's son.]

He smiled and said, "You have formed a very favourable idea of the abbey."

"To be sure I have. Is not it a fine old place, just like what one reads about?"

"And are you prepared to encounter all the horrors that a building such as 'what one reads about' may produce? Have you a stout heart? Nerves fit for sliding panels and tapestry?"

"Oh! yes, I do not think I should be easily frightened, because there would be so many people in the house; and besides, it has never been uninhabited and left deserted for years, and then the family come back to it unawares, without giving any notice, as generally happens."

"No, certainly. We shall not have to explore our way into a hall dimly lighted by the expiring embers of a wood fire, nor be obliged to spread our beds on the floor of a room without windows, doors, or furniture. But you must be aware that when a young lady is (by whatever means) introduced into a dwelling of this kind, she is always lodged apart from the rest of the family. While they snugly repair to their own end of the house, she is formally conducted by Dorothy, the ancient housekeeper, up a different staircase, and along many gloomy passages, into an apartment never used since some cousin or kin died in it about twenty years before. Can you stand such a ceremony as this! Will not your mind mis-give you, when you find yourself in this gloomy chamber, too lofty and extensive for you, with only the feeble rays of a single lamp to take in its size, its walls hung with tapestry exhibiting figures as large as life, and the bed of dark green stuff or purple velvet, presenting even a funeral appearance. Will not your heart sink within you?"

"Oh! but this will not happen to me I am sure."

"How fearfully will you examine the furniture of your apartment! And what will you discern? Not tables, toilettes, wardrobes, or drawers, but on one side perhaps the remains of a broken lute, on the other a ponderous chest which no efforts can open, and over the fire-place the portrait of some handsome warrior, whose features will so incomprehensibly strike you, that you will not be able to withdraw your eyes from it. Dorothy, meanwhile, no less struck by your appearance, gazes on you in great agitation, and drops a few unintelligible hints. To raise your spirits, moreover, she gives you reason to suppose that the part of the abbey you inhabit is undoubtedly haunted, and informs you that you will not have a single domestic within call. With this parting cordial, she curtseys off: you listen to the sound of her receding footsteps as long as the last echo can reach you: and when, with fainting spirits, you attempt to fasten your door, you discover, with increased alarm, that it has no lock."

"Oh! Mr. Tilney, how frightful. This is just like a book! But it cannot really happen to me. I am sure your housekeeper is not really Dorothy. Well, what then?"

“Nothing further to alarm, perhaps, may occur the first night. After surmounting your *unconquerable* horror of the bed, you will retire to rest, and get a few hours’ unquiet slumber. But on the second, or at farthest the *third* night after your arrival, you will probably have a violent storm. Peals of thunder so loud as to seem to shake the edifice to its foundation will roll around the neighboring mountains; and during the frightful gusts of wind which accompany it, you will probably think you discern (for your lamp is not extinguished) one part of the hanging more violently agitated than the rest. Unable of course to repress your curiosity in so favourable a moment for indulging it, you will instantly arise, and, throwing your dressing-gown around you, proceed to examine this mystery. After a very short search, you will discover a division in the tapestry so artfully constructed as to defy the minutest inspection, and on opening it, a door will immediately appear, which door being only secured by massy bars and a padlock, you will, after a few efforts, succeed in opening, and, with your lamp in your hand, will pass through it into a small vaulted room.”

“No, indeed; I should be too much frightened to do any such thing.”

“What! not when Dorothy has given you to understand that there is a secret subterraneous communication between your apartment and the chapel of St. Anthony, scarcely two miles off. Could you shrink from so simple an adventure? No, no; you will proceed into this small vaulted room, and through this into several others, without perceiving anything very remarkable in either. In one, perhaps, there may be a dagger, in another a few drops of blood, and in a third the remains of some instrument of torture; but there being nothing in all this out of the common way, and your lamp being nearly exhausted, you will return towards your own apartment. In repassing through the small vaulted room, however, your eyes will be attracted towards a large, old-fashioned cabinet of ebony and gold, which, though narrowly examining the furniture before, you had passed unnoticed. Impelled by an irresistible presentiment, you will eagerly advance to it, unlock its folding doors, and search into every

drawer; but for sometime without discovering anything of importance; perhaps nothing but a considerable hoard of diamonds. At last, however, by touching a secret spring, an inner compartment will open, a roll of paper appears, you seize it—it contains many sheets of manuscript; you hasten with the precious treasure into your own chamber, but scarcely have you been able to decipher, ‘Oh thou, whomsoever thou mayst be, into whose hands these memoirs of the wretched Matilda may fall,’ when your lamp suddenly expires in the socket, and leaves you in total darkness.”

“Oh no, no! do not say so. Well, go on.”

But Henry was too much amused by the interest he had raised to be able to carry it farther: he could no longer command solemnity either of subject or voice, and was obliged to entreat her to use her own fancy in the perusal of Matilda’s woes. Catherine, recollecting herself, grew ashamed of her eagerness, and began earnestly to assure him that her attention had been fixed without the smallest apprehension of really meeting with what he related. “Miss Tilney, she was sure, would never put her into such a chamber as he had described. She was not at all afraid.”

As they drew near the end of their journey, her impatience for a sight of the abbey, for some time suspended by his conversation on subjects very different, returned in full force, and every bend in the road was expected, with solemn awe, to afford a glimpse of its massy walls of grey stone, rising amidst a grove of ancient oaks, with the last beams of the sun playing in beautiful splendour on its high Gothic windows. But so low did the building stand, that she found herself passing through the great gates of the lodge, into the very grounds of Northanger, without having discerned even an antique chimney.

She knew not that she had any right to be surprised, but there was something in this mode of approach which she certainly had not expected. To pass between lodges of a modern appearance, to find herself with such ease in the very precincts of the abbey, and driven so rapidly along a smooth, level road of fine gravel, without obstacle, alarm, or solemnity of any kind, struck her as odd and inconsistent. She was not

long at leisure, however, for such considerations. A sudden scud of rain driving full in her face, made it impossible for her to observe anything further, and fixed all her thoughts on the welfare of her new straw bonnet; and she was actually under the abbey walls, was springing, with Henry's assistance, from the carriage, was beneath the shelter of the old porch, and had even passed on to the hall, where her friend and the General were waiting to welcome her, without feeling one awful foreboding of future misery to herself or one moment's suspicion of any past scenes of horror being acted within the solemn edifice. The breeze had not seemed to waft the sighs of the murdered to her; it had wafted nothing worse than a thick mizzling rain, and having given a good shake to her habit, she was ready to be shown into the common drawing-room, and capable of considering where she was.

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[Catherine goes to her room to dress for dinner.]

A moment's glance was enough to satisfy Catherine that her apartment was very unlike the one which Henry had endeavoured to alarm her by the description of. It was by no means unreasonably large, and contained neither tapestry nor velvet. The walls were papered, the floor was carpeted, the windows were neither less perfect nor more dim than those of the drawing-room below; the furniture, though not of the latest fashion, was handsome and comfortable, and the air of the room altogether far from uncheerful. Her heart instantaneously at ease on this point, she resolved to lose no time in particular examination of anything, as she greatly dreaded disobliging the General by any delay. Her habit therefore was thrown off with all possible haste, and she was preparing to unpin the linen package, which the chaise seat had conveyed for her immediate accommodation, when her eye suddenly fell on a large high chest, standing back in a deep recess on one side of the fire-place. The sight of it made her start; and, forgetting every thing else, she stood gazing on it in motionless wonder, while these thoughts crossed her:

"This is strange, indeed! I did not expect such a sight as this! An immense heavy chest! What can it hold? Why

should it be placed here? Pushed back, too, as if meant to be out of sight! I will look into it; cost me what it may, I will look into it, and directly too—by daylight. If I stay till evening my candle may go out.” She advanced and examined it closely; it was of cedar, curiously inlaid with some darker wood, and raised about a foot from the ground on a carved stand of the same. The lock was silver, though tarnished from age; at each end were the imperfect remains of handles also of silver, broken perhaps prematurely by some strange violence; and on the centre of the lid, was a mysterious cipher in the same metal. Catherine bent over it intently, but without being able to distinguish anything with certainty. She could not, in whatever direction she took it, believe the last letter to be a *T*; and yet that it should be anything else in that house was a circumstance to raise no common degree of astonishment. If not originally theirs, by what strange events could it have fallen into the Tilney family?

Her fearful curiosity was every moment growing greater; and seizing with trembling hands, the hasp of the lock, she resolved, at all hazards, to satisfy herself at least as to its contents. With difficulty, for something seemed to resist her efforts, she raised the lid a few inches; but at that moment a sudden knocking at the door of the room made her, starting, quit her hold, and the lid closed with alarming violence. This ill-timed intruder was Miss Tilney’s maid, sent by her mistress to be of use to Miss Morland; and though Catherine immediately dismissed her, it recalled her to the sense of what she ought to be doing, and forced her, in spite of her anxious desire to penetrate this mystery, to proceed in her dressing without further delay. Her progress was not quick, for her thoughts and her eyes were still bent on the object so well calculated to interest and alarm; and though she dared not waste a moment upon a second attempt, she could not remain many paces from the chest. At length, however, having slipped one arm into her gown, her toilet seemed so nearly finished, that the impatience of her curiosity might safely be indulged. One moment surely might be spared; and so desperate should be the exer-

tion of her strength, that unless secured by supernatural means, the lid in one moment should be thrown back. With this spirit she sprang forward, and her confidence did not deceive her. Her resolute effort threw back the lid, and gave to her astonished eyes the view of a white cotton counterpane, properly folded, reposing at one end of the chest in undisputed possession!

She was gazing on it with the first blush of surprise, when Miss Tilney, anxious for her friend's being ready, entered the room, and to the rising shame of having harboured for some minutes an absurd expectation, was then added the shame of being caught in so idle a search. "That is a curious old chest, is not it?" said Miss Tilney, as Catherine hastily closed it and turned away to the glass. "It is impossible to say how many generations it has been here. How it came to be first put in this room I know not, but I have not had it moved, because I thought it might sometimes be of use in holding hats and bonnets. The worst of it is, that its weight makes it difficult to open. In that corner, however, it is at least out of the way."

Catherine had no leisure for speech, being at once blushing, tying her gown, and forming wise resolutions with the most violent dispatch. Miss Tilney gently hinted her fear of being late; and in half a minute they ran downstairs together, in an alarm not wholly unfounded, for General Tilney was pacing the drawing-room, his watch in his hand, and having, on the very instant of their entering, pulled the bell with violence, ordered, "Dinner to be on table *directly*!"

Catherine trembled at the emphasis with which he spoke, and sat pale and breathless, in a most humble mood, concerned for his children, and detesting old chests; and the General recovering his politeness as he looked at her, spent the rest of his time in scolding his daughter, for so foolishly hurrying her fair friend, who was absolutely out of breath from haste, when there was not the least occasion for hurry in the world; but Catherine could not at all get over the double distress of having involved her friend in a lecture and been a great simpleton herself, till they were happily

seated at the dinner-table, when the General's complacent smiles, and a good appetite of her own, restored her to peace.

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The night was stormy; the wind had been rising at intervals the whole afternoon; and by the time the party broke up, it blew and rained violently. Catherine, as she crossed the hall, listened to the tempest with sensations of awe; and when she heard it rage round a corner of the ancient building, and close with sudden fury a distant door, felt for the first time that she was really in an abbey. Yes, these were characteristic sounds; they brought to her recollection a countless variety of dreadful situations and horrid scenes, which such buildings had witnessed, and such storms ushered in; and most heartily did she rejoice in the happier circumstances attending her entrance within walls so solemn! *She* had nothing to dread from midnight assassins or drunken gallants. Henry had certainly been only in jest in what he had told her that morning. In a house so furnished, and so guarded, she could have nothing to explore or to suffer, and might go to her bed-room as securely as if it had been her own chamber at Fullerton. Thus wisely fortifying her mind, as she proceeded upstairs, she was enabled, especially on perceiving that Miss Tilney slept only two doors from her, to enter her room with a tolerably stout heart; and her spirits were immediately assisted by the cheerful blaze of a wood fire. "How much better is this," said she, as she walked to the fender; "how much better to find a fire ready lit, than to have to wait shivering in the cold, till all the family are in bed, as so many poor girls have been obliged to do, and then to have a faithful old servant frightening one by coming in with a faggot! How glad I am that Northanger is what it is! If it had been like some other places, I do not know that, in such a night as this, I could have answered for my courage; but now, to be sure, there is nothing to alarm one."

She looked round the room. The window curtains seemed in motion. It could be nothing but the violence of the wind penetrating through the divisions of the shutters; and she stepped boldly forward, carelessly humming a tune, to assure

herself of its being so, peeped courageously behind each curtain, saw nothing on either low window-seat to scare her, and on placing her hand against the shutter, felt the strongest conviction of the wind's force. A glance at the old chest, as she turned away from this examination, was not without its use; she scorned the causeless fears of an idle fancy, and began with a most happy indifference to prepare herself for bed. "She should take her time; she should not hurry herself; she did not care if she were the last person up in the house. But she would not make up her fire: *that* would seem cowardly, as if she wished for the protection of light after she were in bed." The fire, therefore, died away; and Catherine, having spent the best part of an hour in her arrangements, was beginning to think of stepping into bed, when, on giving a parting glance round the room, she was struck by the appearance of a high, old-fashioned black cabinet, which, though in a situation conspicuous enough, had never caught her notice before. Henry's words, the description of the ebony cabinet which was to escape her observation at first, immediately rushed across her; and though there could be nothing really in it, it was certainly a very remarkable coincidence! She took her candle and looked closely at the cabinet. It was not absolutely ebony and gold; but it was Japan, black and yellow Japan of the handsomest kind; and as she held her candle, the yellow had very much the effect of gold.

The key was in the door, and she had a strange fancy to look into it; not, however, with the smallest expectation of finding anything, but it was so very odd, after what Henry had said. In short she could not sleep till she had examined it. So, placing the candle with great caution on a chair, she seized the key with a very tremulous hand, and tried to turn it; but it resisted her utmost strength. Alarmed, but not discouraged, she tried it another way; a bolt flew, and she believed herself successful; but how strangely mysterious! the door was still immovable. She paused a moment in breathless wonder. The wind roared down the chimney, the rain beat in torrents against the windows, and everything seemed to speak the awfulness of her situation. To retire

to bed, however, unsatisfied on such a point, would be vain, since sleep must be impossible with the consciousness of a cabinet so mysteriously closed in her immediate vicinity. Again, therefore, she applied herself to the key, and after moving it in every possible way, for some instants, with the determined celerity of hope's last effort, the door suddenly yielded to her hand; her heart leaped with exultation at such a victory, and having thrown open each folding door, the second being secured only by bolts of less wonderful construction than the lock, though in that her eye could not discern anything unusual, a double range of small drawers appeared in view, with some larger drawers above and below them, and in the centre, a small door, closed also with lock and key, secured in all probability a cavity of importance.

Catherine's heart beat quick, but her courage did not fail her. With a cheek flushed by hope, and an eye straining with curiosity, her fingers grasped the handle of a drawer and drew it forth. It was entirely empty. With less alarm and greater eagerness she seized a second, a third, a fourth—each was equally empty. Not one was left unsearched, and in not one was anything found. Well read in the art of concealing a treasure, the possibility of false linings to the drawers did not escape her, and she felt round each with anxious acuteness in vain. The place in the middle alone remained now unexplored; and though she had “never from the first had the smallest idea of finding anything in any part of the cabinet, and was not in the least disappointed at her ill success thus far, it would be foolish not to examine it thoroughly while she was about it.” It was some time, however, before she could unfasten the door, the same difficulty occurring in the management of this inner lock as of the outer; but at length it did open; and not vain, as hitherto, was her search; her quick eyes directly fell on a roll of paper pushed back into the further part of the cavity, apparently for concealment, and her feelings at that moment were indescribable. Her heart fluttered, her knees trembled, and her cheeks grew pale. She seized, with an unsteady hand, the precious manuscript, for half a glance sufficed to ascertain written characters; and while she acknowledged with awful sensations

this striking exemplification of what Henry had foretold, resolved instantly to peruse every line before she attempted to rest.

The dimness of the light her candle emitted made her turn to it with alarm; but there was no danger of its sudden extinction, it had yet some hours to burn; and that she might not have any greater difficulty in distinguishing the writing than what its ancient date might occasion, she hastily snuffed it. Alas! it was snuffed and extinguished in one. A lamp could not have expired with more awful effect. Catherine, for a few moments, was motionless with horror. It was done completely; not a remnant of light in the wick could give hope to the rekindling breath. Darkness impenetrable and immovable filled the room. A violent gust of wind, rising with sudden fury, added fresh horror to the moment. Catherine trembled from head to foot. In the pause which succeeded, a sound like receding footsteps and the closing of a distant door struck on her affrighted ear. Human nature could support no more. A cold sweat stood on her forehead, the manuscript fell from her hand, and groping her way to the bed, she jumped hastily in, and sought some suspension of agony by creeping far underneath the clothes. To close her eyes in sleep that night she felt must be entirely out of the question. With a curiosity so justly awakened, and feelings in every way so agitated, repose must be absolutely impossible. The storm, too, abroad so dreadful! She had not been used to feel alarm from wind, but now every blast seemed fraught with awful intelligence. The manuscript so wonderfully found, so wonderfully accomplishing the morning's prediction, how was it to be accounted for? What could it contain? to whom could it relate? by what means could it have been so long concealed? and how singularly strange that it should fall to her lot to discover it! Till she had made herself mistress of its contents, however, she could have neither repose nor comfort; and with the sun's first rays she was determined to peruse it. But many were the tedious hours which must yet intervene. She shuddered, tossed about in her bed, and envied every quiet sleeper. The storm still raged, and various were the noises, more ter-

rific even than the wind, which struck at intervals on her startled ear. The very curtains of her bed seemed at one moment in motion, and at another the lock of her door was agitated, as if by the attempt of somebody to enter. Hollow murmurs seemed to creep along the gallery, and more than once her blood was chilled by the sound of distant moans. Hour after hour passed away, and the wearied Catherine had heard three proclaimed by all the clocks in the house, before the tempest subsided, or she unknowingly fell fast asleep.

The housemaid's folding back her window-shutters at eight o'clock the next day was the sound which first roused Catherine; and she opened her eyes, wondering that they could ever have been closed, on objects of cheerfulness; her fire was already burning, and a bright morning had succeeded the tempest of the night. Instantaneously with the consciousness of existence, returned her recollection of the manuscript; and springing from the bed in the very moment of the maid's going away, she eagerly collected every scattered sheet which had burst from the roll on its falling to the ground, and flew back to enjoy the luxury of their perusal on her pillow. She now plainly saw that she must not expect a manuscript of equal length with the generality of what she had shuddered over in books; for the roll, seeming to consist entirely of small disjointed sheets, was altogether but of trifling size, and much less than she had supposed it to be at first.

Her greedy eye glanced rapidly over a page. She started at its import. Could it be possible, or did not her senses play her false? An inventory of linen, in coarse and modern characters, seemed all that was before her! If the evidence of sight might be trusted, she held a washing-bill in her hand. She seized another sheet, and saw the same articles with little variation; a third, a fourth, and a fifth, presented nothing new. Shirts, stockings, cravats, and waistcoats, faced her in each. Two others, penned by the same hand, marked an expenditure scarcely more interesting, in letters, hair-powders, shoe-string, and breeches-ball; and the larger sheet, which had enclosed the rest, seemed by its first cramp line, "To poultice chestnut mare," a farrier's bill! Such was the

collection of papers (left, perhaps, as she could then suppose, by the negligence of a servant, in the place whence she had taken them) which had filled her with expectation and alarm, and robbed her of half her night's rest! She felt humbled to the dust. Could not the adventure of the chest have taught her wisdom? A corner of it catching her eye as she lay, seemed to rise up in judgment against her. Nothing could now be clearer than the absurdity of her recent fancies. To suppose that a manuscript of many generations back could have remained undiscovered in a room such as that, so modern, so habitable! or that she should be the first to possess the skill of unlocking a cabinet, the key of which was open to all.

How could she have so imposed on herself? Heaven forbid that Henry Tilney should ever know her folly! And it was in a great measure his own doing, for had not the cabinet appeared so exactly to agree with his description of her adventures, she should never have felt the smallest curiosity about it. This was the only comfort that occurred. Impatient to get rid of those hateful evidences of her folly, those detestable papers then scattered over the bed, she rose directly; and folding them up as nearly as possible in the same shape as before, returned them to the same spot within the cabinet, with a very hearty wish that no untoward accident might ever bring them forward again, to disgrace her even with herself.

Why the locks should have been so difficult to open, however, was still something remarkable, for she could now manage them with perfect ease. In this there was surely something mysterious, and she indulged in the flattering suggestion for half a minute, till the possibility of the door's having been at first unlocked, and of being herself its fastener, darted into her head and cost her another blush.

She got away as soon as she could from a room in which her conduct produced such unpleasant reflections, and found her way with all speed to the breakfast, parlour, as it had been pointed out to her by Miss Tilney the evening before. Henry was alone in it; and his immediate hope of her having been undisturbed by the tempest, with an arch reference to the

character of the building they inhabited, was rather distressing. For the world would she not have her weakness suspected; and yet, unequal to an absolute falsehood, was constrained to acknowledge that the wind had kept her awake a little. "But we have a charming morning after it," she added, desiring to get rid of the subject; "and storms and sleeplessness are nothing when they are over. What beautiful hyacinths! I have just learnt to love a hyacinth."

Jane Austen: *Northanger Abbey*.

A FIGHT AND ITS CONSEQUENCES

Cuff's fight with Dobbin, and the unexpected issue of that contest, will long be remembered by every man who was educated at Dr. Swishtail's famous school. The latter youth (who used to be called Heigh-ho Dobbin, Gee-ho Dobbin, and by many other names indicative of puerile contempt) was the quietest, the clumsiest, and, as it seemed, the dullest of all Dr. Swishtail's young gentlemen. His parent was a grocer in the City: and it was bruited abroad that he was admitted into Dr. Swishtail's academy upon what are called "mutual principles"—that is to say, the expenses of his board and schooling were defrayed by his father in goods, not money; and he stood there—almost at the bottom of the school—in his scraggy corduroys and jacket, through the seams of which his great big bones were bursting—as the representative of so many pounds of tea, candles, sugar, mottled-soap, plums (of which a very mild proportion was supplied for the puddings of the establishment), and other commodities. A dreadful day it was for young Dobbin when one of the youngsters of the school, having run into the town upon a poaching excursion for hardbake and polonies, espied the cart of Dobbin and Rudge, Grocers and Oilmen, Thames Street, London, at the Doctor's door, discharging a cargo of the wares in which the firm dealt.

Young Dobbin had no peace after that. The jokes were frightful, and merciless against him. "Hullo, Dobbin," one wag would say, "here's good news in the paper. Sugar is ris',

my boy." Another would set a sum—"If a pound of mutton-candles cost sevenpence-halfpenny, how much must Dobbin cost?" and a roar would follow from all the circle of young knaves, usher and all, who rightly considered that the selling of goods by retail is a shameful and infamous practice, meriting the contempt and scorn of all real gentlemen.

"Your father's only a merchant, Osborne," Dobbin said in private to the little boy who had brought down the storm upon him. At which the latter replied haughtily, "My father's a gentleman, and keeps his carriage;" and Mr. William Dobbin retreated to a remote outhouse in the playground, where he passed a half-holiday in the bitterest sadness and woe. Who amongst us is there that does not recollect similar hours of bitter, bitter childish grief? Who feels injustice; who shrinks before a slight; who has a sense of wrong so acute, and so glowing a gratitude for kindness, as a generous boy? and how many of those gentle souls do you degrade, estrange, torture, for the sake of a little loose arithmetic, and miserable dog-Latin.

Now, William Dobbin, from an incapacity to acquire the rudiments of the above language, as they are propounded in that wonderful book the Eton Latin Grammar, was compelled to remain among the very last of Dr. Swishtail's scholars, and was "taken down" continually by little fellows with pink faces and pinafores when he marched up with the lower form, a giant amongst them, with downcast, stupefied look, his dog's-eared primer, and his tight corduroys. High and low, all made fun of him. They sewed up those corduroys, tight as they were. They cut his bed-strings. They upset buckets and benches, so that he might break his shins over them, which he never failed to do. They sent him parcels which, when opened, were found to contain the paternal soap and candles. There was no little fellow but had his jeer and joke at Dobbin; and he bore everything quite patiently, and was entirely dumb and miserable.

Cuff, on the contrary, was the great chief and dandy of the Swishtail Seminary. He smuggled wine in. He fought the town-boys. Ponies used to come for him to ride home on Saturdays. He had his top-boots in his room, in which he

used to hunt in the holidays. He had a gold repeater; and took snuff like the Doctor. He had been to the Opera, and knew the merits of the principal actors, preferring Mr. Kean to Mr. Kemble. He could knock you off forty Latin verses in an hour. He could make French poetry. What else didn't he know, or couldn't he do? They said even the Doctor himself was afraid of him.

Cuff, the unquestioned king of the school, ruled over his subjects, and bullied them, with splendid superiority. This one blacked his shoes; that toasted his bread, others would fag out, and give him balls at cricket during whole summer afternoons. "Figs" was the fellow whom he despised most, and with whom, though always abusing him, and sneering at him, he scarcely ever condescended to hold personal communication.

One day in private, the two young gentlemen had had a difference. Figs, alone in the school-room, was blundering over a home letter; when Cuff, entering, bade him go upon some message, of which tarts were probably the subject.

"I can't," says Dobbin; "I want to finish my letter."

"You *can't*!" says Mr. Cuff, laying hold of that document (in which many words were scratched out, many were misspelt, on which had been spent I don't know how much thought, and labour, and tears; for the poor fellow was writing to his mother, who was fond of him, although she was a grocer's wife, and lived in a back parlour in Thames Street). "You *can't*?" says Mr. Cuff: "I should like to know why, pray? Can't you write to old Mother Figs to-morrow?"

"Don't call names," Dobbin said, getting off the bench very nervous.

"Well, sir, will you go?" crowed the cock of the school.

"Put down the letter," Dobbin replied; "no gentleman readth letterth."

"Well, *now* will you go?" says the other.

"No, I won't. Don't strike, or I'll *thmash* you," roars out Dobbin, springing to a leaden inkstand, and looking so wicked, that Mr. Cuff paused, turned down his coat sleeves again, put his hands into his pockets, and walked away with a sneer. But he never meddled personally with the grocer's

boy after that; though we must do him the justice to say he always spoke of Mr. Dobbin with contempt behind his back.

Some time after this interview, it happened that Mr. Cuff, on a sunshiny afternoon, was in the neighbourhood of poor William Dobbin, who was lying under a tree in the playground, spelling over a favourite copy of the *Arabian Nights* which he had—apart from the rest of the school, who were pursuing their various sports—quite lonely, and almost happy. If people would but leave children to themselves; if teachers would cease to bully them; if parents would not insist upon directing their thoughts, and dominating their feelings—those feelings and thoughts which are a mystery to all (for how much do you and I know of each other, of our children, of our fathers, of our neighbour, and how far more beautiful and sacred are the thoughts of the poor lad or girl whom you govern likely to be, than those of the dull and world-corrupted person who rules him?)—if, I say, parents and masters would leave their children alone a little more,—small harm would accrue, although a less quantity of *as in presenti* might be acquired.

Well, William Dobbin had for once forgotten the world, and was away with Sindbad the Sailor in the Valley of Diamonds, or with Prince Ahmed and the Fairy Peribanou in that delightful cavern where the Prince found her, and whither we should all like to make a tour; when shrill cries, as of a little fellow weeping, woke up his pleasant reverie; and looking up, he saw Cuff before him, belabouring a little boy.

It was the lad who had peached upon him about the grocer's cart; but he bore little malice, not at least towards the young and small. "How dare you, sir, break the bottle?" says Cuff to the little urchin, swinging a yellow cricket-stump over him.

The boy had been instructed to get over the playground wall (at a selected spot where the broken glass had been removed from the top, and niches made convenient in the brick); to run a quarter of a mile; to purchase a pint of rumshrub on credit; to brave all the Doctor's outlying spies, and to clamber back into the playground again; during the

performance of which feat, his foot had slipt, and the bottle was broken, and the shrub had been spilt, and his pantaloons had been damaged, and he appeared before his employer a perfectly guilty and trembling, though harmless, wretch.

"How dare you, sir, break it?" says Cuff; "you blundering little thief. You drank the shrub, and now you pretend to have broken the bottle. Hold out your hand, sir."

Down came the stump with a great heavy thump on the child's hand. A moan followed. Dobbin looked up. The Fairy Peribanou had fled into the inmost cavern with Prince Ahmed; the Roc had whisked away Sindbad the Sailor out of the Valley of Diamonds out of sight, far into the clouds; and there was everyday life before honest William; and a big boy beating a little one without cause.

"Hold out your other hand, sir," roars Cuff to his little school-fellow, whose face was distorted with pain. Dobbin quivered, and gathered himself up in his narrow old clothes.

"Take that, you little devil!" cried Mr. Cuff, and down came the wicket again on the child's hand. Don't be horrified, ladies, every boy at a public school has done it. Your children will so do and be done by, in all probability. Down came the wicket again; and Dobbin started up.

I can't tell what his motive was. Torture in a public school is as much licensed as the knout in Russia. It would be ungentlemanlike (in a manner) to resist it. Perhaps Dobbin's foolish soul revolted against that exercise of tyranny; or perhaps he had a hankering feeling of revenge in his mind, and longed to measure himself against that splendid bully and tyrant, who had all the glory, pride, pomp, circumstance, banners flying, drums beating, guards saluting, in the place. Whatever may have been his incentive, however, up he sprang, and screamed out, "Hold off, Cuff; don't bully that child any more; or I'll"——

"Or you'll what?" Cuff asked in amazement at this interruption. "Hold out your hand, you little beast."

"I'll give you the worst thrashing you ever had in your life," Dobbin said, in reply to the first part of Cuff's sentence; and little Osborne, gasping and in tears, looked up with wonder and incredulity at seeing this amazing cham-

pion put up suddenly to defend him; while Cuff's astonishment was scarcely less. Fancy our late monarch George III. when he heard of the revolt of the North American colonies; fancy brazen Goliath when little David stepped forward and claimed a meeting; and you have the feelings of Mr. Reginald Cuff when this rencontre was proposed to him.

"After school," says he, of course; after a pause and a look, as much as to say, "Make your will, and communicate your last wishes to your friends between this time and that."

"As you please," Dobbin said. "You must be my bottleholder, Osborne."

"Well, if you like," little Osborne replied; for you see his papa kept a carriage, and he was rather ashamed of his champion.

Yes, when the hour of battle came, he was almost ashamed to say, "Go it, Figs;" and not a single other boy in the place uttered that cry for the first two or three rounds of this famous combat, at the commencement of which the scientific Cuff, with a contemptuous smile on his face, and as light and as gay as if he was at a ball, planted his blows upon his adversary, and floored that unlucky champion three times running. At each fall there was a cheer; and everybody was anxious to have the honour of offering the conqueror a knee.

"What a licking I shall get when it's over," young Osborne thought, picking up his man. "You'd best give in," he said to Dobbin; "It's only a thrashing, Figs, and you know I'm used to it." But Figs, all whose limbs were in a quiver, and whose nostrils were breathing rage, put his little bottleholder aside, and went in for a fourth time.

As he did not in the least know how to parry the blows that were aimed at himself, and Cuff had begun the attack on three preceding occasions, without ever allowing his enemy to strike, Figs now determined that he would commence the engagement by a charge on his own part; and accordingly, being a left-handed man, brought that arm into action, and hit out a couple of times with all his might—once at Mr. Cuff's left eye, and once on his beautiful Roman nose.

Cuff went down this time, to the astonishment of the assembly. "Well hit, by Jove," says little Osborne, with the air

of a connoisseur, clapping his man on the back. "Give it him with the left, Figs, my boy."

Figs' left made terrific play during all the rest of the combat. Cuff went down every time. At the sixth round, there were almost as many fellows shouting out, "Go it, Figs," as there were youths exclaiming, "Go it, Cuff." At the twelfth round the latter champion was all abroad, as the saying is, and had lost all presence of mind and power of attack or defense. Figs, on the contrary, was as calm as a Quaker. His face being quite pale, his eyes shining open, and a great cut on his under lip bleeding profusely, gave this young fellow a fierce and ghastly air, which perhaps struck terror into many spectators. Nevertheless, his intrepid adversary prepared to close for the thirteenth time.

If I had the pen of a Napier, or a Bell's Life, I should like to describe this combat properly. It was the last charge of the Guard—(that is, it *would* have been, only Waterloo had not yet taken place)—it was Ney's column breasting the hill of La Haye Sainte, bristling with ten thousand bayonets, and crowned with twenty eagles—it was the shout of the beef-eating British, as leaping down the hill they rushed to hug the enemy in the savage arms of battle—in other words, Cuff coming up full of pluck, but quite reeling and groggy, the Fig-merchant put in his left as usual on his adversary's nose, and sent him down for the last time.

"I think *that* will do for him," Figs said, as his opponent dropped as neatly on the green as I have seen Jack Spot's ball plump into the pocket at billiards; and the fact is, when time was called, Mr. Reginald Cuff was not able, or did not choose, to stand up again.

And now all the boys set up such a shout for Figs as would have made you think he had been their darling champion through the whole battle; and as absolutely brought Dr. Swishtail out of his study, curious to know the cause of the uproar. He threatened to flog Figs violently, of course; but Cuff, who had come to himself by this time, and was washing his wounds, stood up and said, "It's my fault, sir—not Figs'—not Dobbin's. I was bullying a little boy; and he served me right." By which magnanimous speech he not

only saved his conqueror a whipping, but got back all his ascendancy over the boys which his defeat had nearly cost him.

Young Osborne wrote home to his parents an account of the transaction.

"Sugarcane House, Richmond, March 18—.

"DEAR MAMA,—I hope you are quite well. I should be much obliged to you to send me a cake and five shillings. There has been a fight here between Cuff & Dobbin. Cuff, you know, was the Cock of the School. They fought thirteen rounds, and Dobbin Licked. So Cuff is now Only Second Cock. The fight was about me. Cuff was licking me for breaking a bottle of milk, and Figs wouldn't stand it. We call him Figs because his father is a Grocer—Figs & Rudge, Thames St., City—I think as he fought for me you ought to buy your Tea & Sugar at his father's. Cuff goes home every Saturday, but can't this, because he has 2 Black Eyes. He has a white Pony to come and fetch him, and a groom in livery on a bay mare. I wish my Papa would let me have a Pony, and I am

"Your dutiful Son,

"GEORGE SEDLEY OSBORNE.

"P. S.—Give my love to little Emmy. I am cutting her out a Coach in cardboard. Please not a seed-cake, but a plum-cake."

In consequence of Dobbin's victory, his character rose prodigiously in the estimation of all his schoolfellows, and the name of Figs, which had been a byword of reproach, became as respectable and popular a nickname as any other in use in the school. "After all, it's not his fault that his father's a grocer," George Osborne said, who, though a little chap, had a very high popularity among the Swishtail youth; and his opinion was received with great applause. It was voted low to sneer at Dobbin about his accident of birth. "Old Figs" grew to be a name of kindness and endearment; and the sneak of an usher jeered at him no longer.

And Dobbin's spirit rose with his altered circumstances. He made wonderful advances in scholastic learning. The superb Cuff himself, at whose condescension Dobbin could

only blush and wonder, helped him on with his Latin verses; "coached" him in play-hours; carried him triumphantly out of the little-boy class into the middle-sized form; and even there got a fair place for him. It was discovered, that although dull at classical learning, at mathematics he was uncommonly quick. To the contentment of all he passed third in algebra, and got a French prize-book at the public Midsummer examination. You should have seen his mother's face when *Télémaque* (that delicious romance) was presented to him by the Doctor in the face of the whole school and the parents and company, with an inscription to Gulielmo Dobbin. All the boys clapped hands in token of applause and sympathy. His blushes, his stumbles, his awkwardness, and the number of feet which he crushed as he went back to his place, who shall describe or calculate? Old Dobbin, his father, who now respected him for the first time, gave him two guineas publicly; most of which he spent in a general tuckout for the school; and he came back in a tail-coat after the holidays.

Dobbin was much too modest a young fellow to suppose that this happy change in all his circumstances arose from his own generous and manly disposition; he chose, from some perverseness, to attribute his good fortune to the sole agency and benevolence of little George Osborne, to whom henceforth he vowed such a love and affection as is only felt by children—such an affection, as we read in the charming fairy-book, uncouth Orson had for splendid young Valentine his conqueror. He flung himself down at little Osborne's feet and loved him. Even before they were acquainted, he had admired Osborne in secret. Now he was his valet, his dog, his man Friday. He believed Osborne to be the possessor of every perfection, to be the handsomest, the bravest, the most active, the cleverest, the most generous of created boys. He shared his money with him; bought him uncountable presents of knives, pencil-cases, gold seals, toffee, Little Warblers, and romantic books, with large coloured pictures of knights and robbers, in many of which latter you might read inscriptions to George Sedley Osborne, Esquire, from

his attached friend William Dobbin—the which tokens of homage George received very graciously, as became his superior merit.

W. M. Thackeray: *Vanity Fair*.

THE PICKWICKIAN'S JOURNEY TO MANOR FARM

Bright and pleasant was the sky, balmy the air, and beautiful the appearance of every object around, as Mr. Pickwick leant over the balustrades of Rochester Bridge, contemplating nature, and waiting for breakfast. The scene was indeed one, which might well have charmed a far less reflective mind, than that to which it was presented.

On the left of the spectator lay the ruined wall, broken in many places, and in some, overhanging the narrow beach below in rude and heavy masses. Huge knots of sea-weed hung upon the jagged and pointed stones, trembling in every breath of wind; and the green ivy clung mournfully round the dark, and ruined battlements. Behind it rose the ancient castle, its towers roofless, and its massive walls crumbling away, but telling us proudly of its old might and strength, as when, seven hundred years ago, it rang with the clash of arms, or resounded with the noise of feasting and revelry. On either side, the banks of the Medway, covered with corn-fields and pastures, with here and there a windmill, or a distant church, stretched away as far as the eye could see, presenting a rich and varied landscape, rendered more beautiful by the changing shadows which passed swiftly across it, as the thin and half-formed clouds skimmed away in the light of the morning sun. The river, reflecting the clear blue of the sky, glistened and sparkled as it flowed noiselessly on; and the oars of the fishermen dipped into the water with a clear and liquid sound, as their heavy but picturesque boats glided slowly down the stream.

Mr. Pickwick was roused from the agreeable reverie into which he had been led by the objects before him, by a deep sigh, and a touch on his shoulder. He turned round; and the dismal man was at his side.

"Contemplating the scene?" inquired the dismal man.

"I was," said Mr. Pickwick.

"And congratulating yourself on being up so soon?" Mr. Pickwick nodded assent.

"Ah! people need to rise early, to see the sun in all his splendour, for his brightness seldom lasts the day through. The morning of day and the morning of life are but too much alike."

"You speak truly, Sir," said Mr. Pickwick.

"How common the saying," continued the dismal man, "The morning's too fine to last.' How well might it be applied to our every-day existence. God! what would I forfeit to have the days of my childhood restored, or to be able to forget them forever!"

"You have seen much trouble, Sir," said Mr. Pickwick, compassionately.

"I have," said the dismal man, hurriedly; "I have. More than those who see me now would believe possible." He paused for an instant, and then said, abruptly:

"Did it ever strike you, on such a morning as this, that drowning would be happiness and peace?"

"God bless me, no!" replied Mr. Pickwick, edging a little from the balustrade, as the possibility of the dismal man's tipping him over, by way of experiment, occurred to him rather forcibly.

"I have thought so, often," said the dismal man, without noticing the action. "The calm, cool water seems to me to murmur an invitation to repose and rest. A bound, a splash, a brief struggle; there is an eddy for an instant, it gradually subsides into a gentle ripple; the waters have closed above your head, and the world has closed upon your miseries and misfortunes forever." The sunken eye of the dismal man flashed brightly as he spoke, but the momentary excitement quickly subsided; and, resisting Mr. Pickwick's pressing invitation to breakfast, left that gentleman at his inn, and walked slowly away.

Mr. Pickwick found that his three companions had risen, and were waiting his arrival to commence breakfast, which was ready laid in tempting display. They sat down to the meal; and broiled ham, eggs, tea, coffee, and sundries, began to disappear with a rapidity which at once bore testimony

to the excellence of the fare, and the appetites of its consumers.

"Now, about Manor Farm," said Mr. Pickwick. "How shall we go?"

"We had better consult the waiter, perhaps," said Mr. Tupman; and the waiter was summoned accordingly.

"Dingley Dell, gentleman—fifteen miles, gentlemen—cross road—post-chaise, Sir?"

"Post-chaise won't hold more than two," said Mr. Pickwick.

"True, Sir—beg your pardon, Sir. Very nice four-wheel chaise, Sir—seat for two behind—one in front for the gentleman that drives—oh! beg your pardon, Sir—that'll only hold three."

"What's to be done?" said Mr. Snodgrass.

"Perhaps one of the gentlemen like to ride, Sir," suggested the waiter, looking towards Mr. Winkle; "very good saddle horses, Sir—any of Mr. Wardle's men coming to Rochester, bring 'em back, Sir."

"The very thing," said Mr. Pickwick. "Winkle, will you go on horseback?"

Now Mr. Winkle did entertain considerable misgivings in the very lowest recesses of his own heart, relative to his equestrian skill; but, as he would not have them even suspected on any account, he at once replied with great hardihood, "Certainly. I should enjoy it, of all things."

Mr. Winkle had rushed upon his fate; there was no resource. "Let them be at the door by eleven," said Mr. Pickwick.

"Very well, Sir," replied the waiter.

The waiter retired; the breakfast concluded; and the travellers ascended to their respective bedrooms, to prepare a change of clothing, to take with them on their approaching expedition.

Mr. Pickwick had made his preliminary arrangements, and was looking over the coffee-room blinds at the passengers in the street, when the waiter entered, and announced that the chaise was ready—an announcement which the vehicle itself confirmed, by forthwith appearing before the coffee-room blinds aforesaid.

It was a curious little green box on four wheels, with a low place like a wine bin for two behind, and an elevated perch for one in front, drawn by an immense brown horse, displaying great symmetry of bone. An hostler stood near it, holding by the bridle another immense horse—apparently a near relative of the animal in the chaise—ready saddled for Mr. Winkle.

“Bless my soul!” said Mr. Pickwick, as they stood upon the pavement while the coats were being put in. “Bless my soul! who’s to drive? I never thought of that.”

“Oh! you, of course,” said Mr. Tupman.

“Of course,” said Mr. Snodgrass.

“I!” exclaimed Mr. Pickwick.

“Not the slightest fear, Sir,” interposed the hostler. “Warrant him quiet, Sir; a hinfant in arms might drive him.”

“He don’t shy, does he?” inquired Mr. Pickwick.

“Shy, Sir?—He wouldn’t shy if he was to meet a vagin-load of monkeys, with their tails burnt off.”

The last recommendation was indisputable. Mr. Tupman and Mr. Snodgrass got into the bin; Mr. Pickwick ascended to his perch, and deposited his feet on a floor-clothed shelf, erected beneath it, for that purpose.

“Now, shiny Villiam,” said the hostler to the deputy hostler, “give the gen’lm’n the ribbins.” “Shiny Villiam”—so called, probably, from his sleek hair and oily countenance—placed the reins in Mr. Pickwick’s left hand; and the upper hostler thrust a whip into his right.

“Woo,” cried Mr. Pickwick, as the tall quadruped evinced a decided inclination to back into the coffee-room window.

“Wo—o,” echoed Mr. Tupman and Mr. Snodgrass, from the bin.

“Only his playfulness, gen’lm’n,” said the head hostler, encouragingly, “jist kitch hold on him, Villiam.” The deputy restrained the animal’s impetuosity, and the principal ran to assist Mr. Winkle in mounting.

“T’other side, Sir, if you please.”

“Blowed if the gen’lm’n worn’t a gettin’ up on the wrong side,” whispered a grinning post-boy, to the inexpressibly gratified waiter.

Mr. Winkle, thus instructed, climbed into his saddle, with about as much difficulty as he would have experienced in getting up the side of a first-rate man-of-war.

"All right?" inquired Mr. Pickwick, with an inward presentiment that it was all wrong.

"All right," replied Mr. Winkle faintly.

"Let 'em go," cried the hostler,—*"Hold him in, Sir;"* and away went the chaise, and the saddle horse, with Mr. Pickwick on the box of the one, and Mr. Winkle on the back of the other, to the delight and gratification of the whole inn yard.

"What makes him go sideways?" said Mr. Snodgrass in the bin, to Mr. Winkle in the saddle.

"I can't imagine," replied Mr. Winkle. His horse was going up the street in the most mysterious manner—side first, with his head towards one side of the way, and his tail to the other.

Mr. Pickwick had no leisure to observe either this, or any other particular, the whole of his faculties being concentrated in the management of the animal attached to the chaise, who displayed various peculiarities, highly interesting to a by-stander, but by no means equally amusing to any one seated behind him. Besides constantly jerking his head up, in a very unpleasant and uncomfortable manner, and tugging at the reins to an extent which rendered it a matter of great difficulty for Mr. Pickwick to hold them, he had a singular propensity for darting suddenly every now and then to the side of the road, then stopping short, and then rushing forward for some minutes, at a speed which it was wholly impossible to control.

"What *can* he mean by this?" said Mr. Snodgrass, when the horse had executed this manœuvre for the twentieth time.

"I don't know," replied Mr. Tupman; "*it looks* very like shying, don't it?" Mr. Snodgrass was about to reply, when he was interrupted by a shout from Mr. Pickwick.

"Woo," said that gentleman, "I have dropped my whip."

"Winkle," cried Mr. Snodgrass, as the equestrian came trotting up on the tall horse, with his hat over his ears;

and shaking all over, as if he would shake to pieces, with the violence of the exercise. "Pick up the whip, there's a good fellow." Mr. Winkle pulled at the bridle of the tall horse till he was black in the face; and having at length succeeded in stopping him, dismounted, handed the whip to Mr. Pickwick, and grasping the reins, prepared to remount.

Now whether the tall horse, in the natural playfulness of his disposition, was desirous of having a little innocent recreation with Mr. Winkle, or whether it occurred to him that he could perform the journey as much to his own satisfaction, without a rider as with one, are points upon which, of course, we can arrive at no definite and distinct conclusion. By whatever motives the animal was actuated, certain it is that Mr. Winkle had no sooner touched the reins, than he slipped them over his head, and darted backwards to their full length.

"Poor fellow," said Mr. Winkle, soothingly,—*"poor fellow—good old horse."* The *"poor fellow"* was proof against flattery; the more Mr. Winkle tried to get nearer him, the more he sidled away; and, notwithstanding all kinds of coaxing and wheedling, there were Mr. Winkle and the horse going round and round each other for ten minutes, at the end of which time each was at precisely the same distance from the other as when they first commenced—an unsatisfactory sort of thing under any circumstances, but particularly so in a lonely road, where no assistance can be procured.

"What am I to do?" shouted Mr. Winkle, after the dodging had been prolonged for a considerable time. "What am I to do? I can't get on him?"

"You had better lead him till we come to a turnpike," replied Mr. Pickwick from the chaise.

"But he won't come," roared Mr. Winkle. "Do come, and hold him."

Mr. Pickwick was the very personation of kindness and humanity; he threw the reins on the horse's back, and having descended from his seat, carefully drew the chaise into the hedge, lest anything should come along the road, and stepped back to the assistance of his distressed com-

panion, leaving Mr. Tupman and Mr. Snodgrass in the vehicle.

The horse no sooner beheld Mr. Pickwick advancing towards him, with the chaise whip in his hand, than he exchanged from the rotary motion in which he had previously indulged, for a retrograde movement of so very determined a character, that it at once drew Mr. Winkle, who was still at the end of the bridle, at a rather quicker rate than fast walking, in the direction from which they had just come. Mr. Pickwick ran to his assistance, but the faster Mr. Pickwick ran forward, the faster the horse ran backward. There was a great scraping of feet, and kicking up of the dust; and at last Mr. Winkle, his arms being nearly pulled out of their sockets, fairly let go his hold. The horse paused, stared, shook his head, turned round, and quietly trotted home to Rochester, leaving Mr. Winkle and Mr. Pickwick gazing on each other with countenances of blank dismay. A rattling noise at a little distance attracted their attention. They looked up.

"Bless my soul!" exclaimed the agonized Mr. Pickwick, "there's the other horse running away!"

It was but too true. The animal was startled by the noise, and the reins were on his back. The result may be guessed. He tore off with the four-wheeled chaise behind him, and Mr. Tupman and Mr. Snodgrass in the four-wheeled chaise. The heat was a short one. Mr. Tupman threw himself into the hedge, Mr. Snodgrass followed his example, the horse dashed the four-wheeled chaise against a wooden bridge, separated the wheels from the body, and the bin from the perch; and finally stood stock still, to gaze upon the ruin he had made.

The first care of the two unspilt friends was to extricate their unfortunate companions from their bed of quickset—a process which gave them the unspeakable satisfaction of discovering that they had sustained no injury, beyond sundry rents in their garments, and various lacerations from the brambles. The next thing to be done was, to unharness the horse. This complicated process having been effected, the party walked slowly forward, leading the horse among them, and abandoning the chaise to its fate.

An hour's walking brought the travellers to a little roadside public house, with two elm-trees, a horse trough, and a sign-post, in front; one or two deformed hay-ricks behind, a kitchen garden at the side, and rotten sheds and mouldering out-houses, jumbled in strange confusion, all about it. A red-headed man was working in the garden; and to him Mr. Pickwick called lustily—"Hallo there!"

The red-headed man raised his body, shaded his eyes with his hand, and stared, long and coolly, at Mr. Pickwick and his companions.

"Hallo there!" repeated Mr. Pickwick.

"Hallo!" was the red-headed man's reply.

"How far is it to Dingley Dell?"

"Better er seven mile."

"Is it a good road?"

"No, t'ant." Having uttered this brief reply, and apparently satisfied himself with another scrutiny, the red-headed man resumed his work.

"We want to put this horse up here," said Mr. Pickwick; "I suppose we can, can't we?"

"Want to put that ere horse up, do ee?" repeated the red-headed man, leaning on his spade.

"Of course," replied Mr. Pickwick, who had by this time advanced, horse in hand, to the garden rails.

"Missus"—roared the man with the red head, emerging from the garden, and looking very hard at the horse—"Missus."

A tall bony woman—straight all the way down—in a coarse blue pelisse, with the waist an inch or two below her arm-pits, responded to the call.

"Can we put this horse up here, my good woman?" said Mr. Tupman, advancing, and speaking in his most seductive tones. The woman looked very hard at the whole party; and the red-headed man whispered something in her ear.

"No," replied the woman, after a little consideration, "I'm afeerd on it."

"Afraid!" exclaimed Mr. Pickwick, "what's the woman afraid of!"

"It got us in trouble last time," said the woman, turning into the house; "I woant have nothin' to say to 'un."

"Most extraordinary thing I ever met with in my life," said the astonished Mr. Pickwick.

"I—I—really believe," whispered Mr. Winkle, as his friends gathered round him, "that they think we have come by this horse in some dishonest manner."

"What!" exclaimed Mr. Pickwick, in a storm of indignation. Mr. Winkle modestly repeated his suggestion.

"Hallo, you fellow!" said the angry Mr. Pickwick, "do you think we stole this horse?"

"I'm sure ye did," replied the red-headed man, with a grin which agitated his countenance from one auricular organ to the other. Saying which, he turned into the house, and banged the door after him.

"It's like a dream,"—ejaculated Mr. Pickwick, "a hideous dream. The idea of a man's walking about, all day, with a dreadful horse that he can't get rid of!" The depressed Pickwickians turned moodily away, with the tall quadruped, for which they all felt the most unmitigated disgust, following slowly at their heels.

It was late in the afternoon, when the four friends and their four-footed companion, turned into the lane leading to Manor Farm; and even when they were so near their place of destination, the pleasure they would otherwise have experienced, was materially damped as they reflected on the singularity of their appearance and the absurdity of their situation. Torn clothes, lacerated faces, dusty shoes, exhausted looks, and, above all, the horse. Oh, how Mr. Pickwick cursed that horse; he had eyed the noble animal from time to time with looks expressive of hatred and revenge; more than once he had calculated the probable amount of the expense he would incur by cutting his throat; and now the temptation to destroy him, or to cast him loose upon the world, rushed upon his mind with tenfold force. He was roused from a meditation on these dire imaginings, by the sudden appearance of two figures, at a turn of the lane. It was Mr. Wardle, and his faithful attendant, the fat boy.

"Why, where *have* you been?" said the hospitable old gentleman. "I've been waiting for you all day. Well, you *do*

look tired. What! Scratches! Not hurt, I hope—eh? Well, I *am* glad to hear that—very. So you've been spilt, eh? Never mind. Common accident in these parts. Joe—damn that boy, he's asleep again—Joe take that horse from the gentleman, and lead it into the stable."

The fat boy sauntered heavily behind them with the animal; and the old gentleman condoling with his guests in homely phrase, on so much of the day's adventures as they thought proper to communicate, led the way to the kitchen.

"We'll have you put to rights here," said the old gentleman, "and then I'll introduce you to the people in the parlour. Emma, bring out the cherry brandy; now, Jane, a needle and thread here; towels and water, Mary. Come, girls, bustle about."

Three or four buxom girls speedily dispersed in search of the different articles in requisition, while a couple of large-headed, circular-visaged males rose from their seats in the chimney corner, (for although it was a May evening, their attachment to the wood fire appeared as cordial as if it were Christmas,) and dived into some obscure recesses, from which they speedily produced a bottle of blacking, and some half-dozen brushes.

"Bustle," said the old gentleman again, but the admonition was quite unnecessary, for one of the girls poured out the cherry brandy, and another brought in the towels, and one of the men suddenly seizing Mr. Pickwick by the leg, at the imminent hazard of throwing him off his balance, brushed away at his boot, till his corns were red-hot; while the other shampoo'd Mr. Winkle with a heavy clothes brush, indulging, during the operation, in that hissing sound, which hostlers are wont to produce, when engaged in rubbing down a horse.

Mr. Snodgrass, having concluded his ablutions, took a survey of the room, while standing with his back to the fire, sipping his cherry brandy with heartfelt satisfaction. He describes it, as a large apartment, with a red brick floor, and a capacious chimney; the ceiling garnished with hams, sides of bacon, and ropes of onions. The walls were decorated with several hunting-whips, two or three bridles, a saddle, and an old rusty blunderbuss, with an inscription below it, intimating that it was "Loaded"—as it had been, on the same

authority, for half a century at least. An old eight-day clock, of solemn and sedate demeanour, ticked gravely in one corner; and a silver watch, of equal antiquity, dangled from one of the many hooks which ornamented the dresser.

"Ready?" said the old gentleman inquiringly, when his guests had been washed, mended, brushed, and brandied.

"Quite," replied Mr. Pickwick.

"Come along then," and the party having traversed several dark passages, and being joined by Mr. Tupman, who had lingered behind to snatch a kiss from Emma, for which he had been duly rewarded with sundry pushings and scratchings, arrived at the parlour door.

"Welcome," said their hospitable host, throwing it open and stepping forward to announce them, "Welcome, gentlemen, to Manor Farm."

Charles Dickens: *Pickwick Papers*.

CREE QUEERY AND MYSY DROLLY

The children used to fling stones at Grinder Queery because he loved his mother. I never heard the Grinder's real name. He and his mother were Queery and Drollly, contemptuously so called, and they answered to these names. I remember Cree best as a battered old weaver, who bent forward as he walked, with his arms hanging limp as if ready to grasp the shafts of the barrow behind which it was his life to totter uphill and downhill, a rope of yarn suspended round his shaking neck, and fastened to the shafts, assisting him to bear the yoke and slowly strangling him. By and by there came a time when the barrow and the weaver seemed both palsy-stricken, and Cree, gasping for breath, would stop in the middle of a braise, unable to push his load over a stone. Then he laid himself down behind it to prevent the barrow's slipping back. On those occasions only the bare-footed boys who jeered at the panting weaver could put new strength into his shriveled arms. They did it by telling him that he and

Mysy would have to go to the "poorhouse" after all, at which the gray old man would wince, as if "joukin" from a blow, and shuddering, rise and with a desperate effort, gain the top of the incline. Small blame perhaps attached to Cree if, as he neared his grave, he grew a little dottle. His loads of yarn frequently took him past the workhouse, and his eyelids quivered as he drew near. Boys used to gather round the gate in anticipation of his coming, and make a feint of driving him inside. Cree, when he observed them, sat down on his barrow-shafts terrified to approach, and I see them now pointing to the workhouse till he left his barrow on the road and hobbled away, his legs crackling as he ran.

It is strange to know that there was once a time when Cree was young and straight, a callant who wore a flower in his buttonhole, and tried to be a hero for a maiden's sake.

Before Cree settled down as a weaver, he was knife and scissors grinder for three counties, and Mysy, his mother, accompanied him wherever he went. Mysy trudged alongside him till her eyes grew dim and her limbs failed her, and then Cree was told that she must be sent to the pauper's home. After that a pitiable and beautiful sight was to be seen. Grinder Queery, already a feeble man, would wheel his grindstone along the long highroad, leaving Mysy behind. He took the stone on a few hundred yards, and then, hiding it by the roadside in a ditch or behind a paling, return for his mother. Her he led—sometimes he almost carried her—to the place where the grindstone lay, and thus by double journeys kept her with him. Everyone said that Mysy's death would be a merciful release—everyone but Cree.

Cree had been a grinder from his youth, having learned the trade from his father, but he gave it up when Mysy became almost blind. For a time he had to leave her in Thrums with Dan'l Wilkie's wife, and find employment himself in Tilliedrum. Mysy got me to write several letters for her to Cree, and she cried while telling me what to say. I never heard either of them use a term of endearment to the other, but all Mysy could tell me to put in writing

was—"Oh, my son Cree; oh, my beloved son; oh, I have no one but you; oh, thou God, watch over my Cree!" On one of these occasions Mysy put into my hands a paper, which, she said, would perhaps help me to write the letter. It had been drawn up by Cree many years before, when he and his mother had been compelled to part for a time, and I saw from it that he had been trying to teach Mysy to write. The paper consisted of phrases such as "Dear son Cree," "Loving mother," "I am taking my food weel," "Yesterday," "Blankets," "The peats is near done," "Mr. Dishart," "Come home, Cree." The Grinder had left this paper with his mother, and she had written letters to him from it.

When Dan'l Wilkie objected to keeping a cranky old body like Mysy in his house Cree came back to Thrums and took a single room with a handloom in it. The flooring was only lumpy earth, with sacks spread over it to protect Mysy's feet. The room contained two dilapidated old coffin beds, a dresser, a high backed armchair, several three-legged stools, and two tables, of which one could be packed away beneath the other. In one corner stood the wheel at which Cree had to fill his own pirns. There was a plate rack on one wall, and near the chimney piece hung the wag-at-the-wall clock, the timepiece that was commonest in Thrums at that time, and that got this name because its exposed pendulum swung along the wall. The two windows in the room faced each other on opposite walls, and were so small that even a child might have stuck in trying to crawl through them. They opened on hinges, like a door. In the wall of the dark passage leading from the outer door into the room was a recess where a pan and pitcher of water always stood wedged, as it were, and a little hole, known as the "bole," in the wall opposite the fireplace contained Cree's library. It consisted of Baxter's "Saints' Rest," Harvey's "Meditations," the "Pilgrim's Progress," a work on folk lore, and several Bibles. The saut-bucket, or salt bucket, stood at the end of the fender, which was half of an old cart wheel. Here Cree worked, whistling "Ower the Watter for Chairlie" to make Mysy think that he was as gay as a mavis. Mysy

grew querulous in her old age, and up to the end she thought of poor, done Cree as a handsome gallant. Only by weaving far on into the night could Cree earn as much as six shillings a week. He began at six o'clock in the morning and worked until midnight by the light of his cruizey. The cruizey was all the lamp Thrums had in those days, though it is only to be seen in use now in a few old-world houses in the glens. It is an ungainly thing in iron, the size of a man's palm, and shaped not unlike the palm when contracted, and deepened to hold a liquid. Whale oil, lying open in the mold, was used, and the wick was a rash with the green skin peeled off. These rashes were sold by herd boys at a halfpenny the bundle, but Cree gathered his own wicks. The rashes skin readily when you know how to do it. The iron mold was placed inside another of the same shape, but slightly larger, for in time the oil dripped through the iron, and the whole was then hung by a cleek or hook close to the person using it. Even with three wicks it gave but a stime of light, and never allowed the weaver to see more than the half of his loom at a time. Sometimes Cree used threads for wicks. He was too dull a man to have many visitors, but Mr. Dishart called occasionally and reproved him for telling his mother lies. The lies Cree told Mysy were that he was sharing the meals he won for her, and that he wore the overcoat which he had exchanged years before for a blanket to keep her warm.

There was a terrible want of spirit about Grinder Queery. Boys used to climb on to his stone roof with clods of damp earth in their hands, which they dropped down the chimney. Mysy was bedridden by this time, and the smoke threatened to choke her; so Cree, instead of chasing his persecutors, bargained with them. He gave them fly hooks which he had busked himself, and when he had nothing left to give he tried to flatter them into dealing gently with Mysy by talking to them as men. One night it went through the town that Mysy now lay in bed all day listening for her summons to depart. According to her ideas this would come in the form of a tapping at the window, and their intention was to forestall the spirit.

Ditë Gow's boy, who is now a grown man, was hoisted up to one of the little windows, and he has always thought of Mysy since as he saw her then for the last time. She lay sleeping, so far as he could see, and Cree sat by the fireside looking at her.

Everyone knew that there was seldom a fire in that house unless Mysy was cold. Cree seemed to think that the fire was getting low. In the little closet, which, with the kitchen, made up his house, was a corner shut off from the rest of the room by a few boards, and behind this he kept his peats. There was a similar receptacle for potatoes in the kitchen. Cree wanted to get another peat for the fire without disturbing Mysy. First he took off his boots, and made for the peats on tip-toe. His shadow was cast on the bed, however, so he next got down on his knees and crawled softly into the closet. With the peat in his hands, he returned in the same way, glancing every moment at the bed where Mysy lay. Though Tammy Gow's face was pressed against a broken window he did not hear Cree putting that peat on the fire. Some say that Mysy heard, but pretended not to do so for her son's sake, that she realized the deception he played on her, and had not the heart to undeceive him. But it would be too sad to believe that. The boys left Cree alone that night.

The old weaver lived on alone in that solitary house after Mysy left him, and by and by the story went abroad that he was saving money. At first no one believed this except the man who told it, but there seemed after all to be something in it. You had only to hit Cree's trouser pocket to hear the money chinking, for he was afraid to let it out of his clutch. Those who sat on dikes with him when his day's labor was over said that the weaver kept his hand all the time in his pocket, and that they saw his lips move as he counted his hoard by letting it slip through his fingers. So there were boys who called "Miser Queery" after him instead of Grinder, and asked him whether he was saving up to keep himself from the workhouse.

But we had all done Cree wrong. It came out on his

deathbed what he had been storing up his money for. Grinder, according to the doctor, died of getting a good meal from a friend of his earlier days after being accustomed to starve on potatoes and a very little oatmeal indeed. The day before he died this friend sent him half a sovereign, and when Grinder saw it he sat up excitedly in his bed and pulled his corduroys from beneath his pillow. The woman who, out of kindness, attended him in his last illness, looked on curiously, while Cree added the sixpences and coppers in his pocket to the half-sovereign. After all, they only made some two pounds, but a look of peace came into Cree's eyes as he told the woman to take it all to a shop in the town. Nearly twelve years previously Jamie Lownie had lent him two pounds, and though the money was never asked for, it preyed on Cree's mind that he was in debt. He paid off all he owed, and so Cree's life was not, I think, a failure.

J. M. Barrie: *Auld Licht Idylls*.

THE NECKLACE

She was one of those pretty and charming girls who are sometimes, as if by a mistake of destiny, born in a family of clerks. She had no dowry, no expectations, no means of being known, understood, loved, wedded, by any rich and distinguished man, and she let herself be married to a little clerk at the Ministry of Public Instruction.

She dressed plainly because she could not dress well, but she was as unhappy as though she had really fallen from her proper station; since with women there is neither caste nor rank; and beauty, grace, and charm act instead of family and birth. Natural fineness, instinct for what is elegant, suppleness of wit, are the sole hierarchy, and make from women of the people the equals of the very greatest ladies.

She suffered ceaselessly, feeling herself born for all the delicacies and all the luxuries. She suffered from the poverty of her dwelling, from the wretched look of the

walls, from the worn-out chairs, from the ugliness of the curtains. All those things of which another woman of her rank would never even have been conscious, tortured her and made her angry. The sight of the little Breton peasant who did her humble housework aroused in her regrets which were despairing and distracted dreams. She thought of the silent antechambers hung with Oriental tapestry, lit by tall bronze candelabra, and of the two great footmen in knee breeches who sleep in the big arm-chairs, made drowsy by the heavy warmth of the hot-air stove. She thought of the long *salons* fitted up with ancient silk, of the delicate furniture carrying priceless curiosities, and of the coquettish perfumed boudoirs made for talks at five o'clock with intimate friends, with men famous and sought after, whom all women envy, and whose attention they all desire.

When she sat down to dinner before the round table covered with a tablecloth three days old, opposite her husband, who uncovered the soup-tureen and declared with an enchanted air, "Ah, the good *pot-au-feu*! I don't know anything better than that," she thought of dainty dinners, of shining silverware, of tapestry which peopled the walls with ancient personages and with strange birds flying in the midst of a fairy forest; and she thought of delicious dishes served on marvelous plates, and of the whispered gallantries which you listen to with a sphinx-like smile, while you are eating the pink flesh of a trout or the wings of a quail.

She had no dresses, no jewels, nothing. And she loved nothing but that; she felt made for that. She would so have liked to please, to be envied, to be charming, to be sought after.

She had a friend, a former schoolmate at the convent, who was rich and whom she did not like to go and see any more, because she suffered so much when she came back.

But, one evening, her husband returned home with a triumphant air, and holding a large envelope in his hand.

"There," said he, "here is something for you."

She tore the paper sharply, and drew out a printed card which bore these words:

"The Minister of Public Instruction and Mme. Georges Ramponneau request the honor of M. and Mme. Loisel's company at the palace of the Ministry on Monday evening, January 18th."

Instead of being delighted, as her husband hoped, she threw the invitation on the table with disdain, murmuring:

"What do you want me to do with that?"

"But, my dear, I thought you would be glad. You never go out, and this is such a fine opportunity. I had awful trouble to get it. Every one wants to go; it is very select, and they are not giving many invitations to clerks. The whole official world will be there."

She looked at him with an irritated eye, and she said, impatiently:

"And what do you want me to put on my back?"

He had not thought of that; he stammered:

"Why, the dress you go to the theater in. It looks very well to me."

He stopped, distracted, seeing that his wife was crying. Two great tears descended slowly from the corners of her eyes toward the corners of her mouth. He stuttered:

"What's the matter? What's the matter?"

But by a violent effort she had conquered her grief, and she replied, with a calm voice, while she wiped her wet cheeks:

"Nothing. Only I have no dress, and therefore I can't go to this ball. Give your card to some colleague whose wife is better equipped than I."

He was in despair. He resumed:

"Come, let us see, Mathilde. How much would it cost, a suitable dress which you could use on other occasions, something very simple?"

She reflected several seconds, making her calculations and wondering also what sum she could ask without drawing on herself an immediate refusal and a frightened exclamation from the economical clerk.

Finally she replied, hesitatingly:

"I don't know exactly, but I think I could manage it with four hundred francs."

He had grown a little pale, because he was laying aside just that amount to buy a gun and treat himself to a little shooting next summer on the plain of Nanterre, with several friends who went to shoot larks down there, of a Sunday.

But he said:

"All right. I will give you four hundred francs. And try to have a pretty dress."

The day of the ball drew near, and Mme. Loisel seemed sad, uneasy, anxious. Her dress was ready, however. Her husband said to her one evening:

"What is the matter? Come, you've been so queer these last three days."

And she answered:

"It annoys me not to have a single jewel, not a single stone, nothing to put on. I shall look like distress. I should almost rather not go at all."

He resumed:

"You might wear natural flowers. It's very stylish at this time of the year. For ten francs you can get two or three magnificent roses."

She was not convinced.

"No; there's nothing more humiliating than to look poor among other women who are rich."

But her husband cried:

"How stupid you are! Go look up your friend Mme. Forestier, and ask her to lend you some jewels. You're quite thick enough with her to do that."

She uttered a cry of joy.

"It's true. I never thought of it."

The next day she went to her friend and told of her distress.

Mme. Forestier went to a wardrobe with a glass door, took out a large jewelbox, brought it back, opened it, and said to Mme. Loisel:

"Choose, my dear."

She saw first of all some bracelets, then a pearl necklace, then a Venetian cross, gold and precious stones of admirable workmanship. She tried on the ornaments before the glass, hesitated, could not make up her mind

to part with them, to give them back. She kept asking: "Haven't you any more?"

"Why, yes. Look. I don't know what you like."

All of a sudden she discovered, in a black satin box, a superb necklace of diamonds; and her heart began to beat with an immoderate desire. Her hands trembled as she took it. She fastened it around her throat, outside her high-necked dress, and remained lost in ecstasy at the sight of herself.

Then she asked, hesitatingly, filled with anguish:

"Can you lend me that, only that?"

"Why, yes, certainly."

She sprang upon the neck of her friend, kissed her passionately, then fled with her treasure.

The day of the ball arrived. Mme. Loisel made a great success. She was prettier than them all, elegant, gracious, smiling, and crazy with joy. All the men looked at her, asked her name, endeavored to be introduced. All the attachés of the Cabinet wanted to waltz with her. She was remarked by the Minister himself.

She danced with intoxication, with passion, made drunk by pleasure, forgetting all in the triumph of her beauty, in the glory of her success, in a sort of cloud of happiness composed of all this homage, of all this admiration, of all these awakened desires, and of that sense of complete victory which is so sweet to woman's heart.

She went away about four o'clock in the morning. Her husband had been sleeping since midnight, in a little deserted anteroom, with three other gentlemen whose wives were having a very good time.

He threw over her shoulders the wraps which he had brought, modest wraps of common life, whose poverty contrasted with the elegance of the ball dress. She felt this, and wanted to escape so as not to be remarked by the other women who were enveloping themselves in costly furs.

Loisel held her back.

"Wait a bit. You will catch cold outside. I will go and call a cab."

But she did not listen to him, and rapidly descended

the stairs. When they were in the street, they did not find a carriage; and they began to look for one, shouting after the cabmen whom they saw passing by at a distance.

They went down towards the Seine, in despair, shivering with cold. At last they found on the quay one of those ancient noctambulant coupés, which, exactly as if they were ashamed to show their misery during the day, are never seen round Paris until after nightfall.

It took them to their door in the Rue des Martyrs, and once more, sadly, they climbed up homeward. All was ended for her. And as to him, he reflected that he must be at the Ministry at ten o'clock.

She removed the wraps, which covered her shoulders, before the glass, so as once more to see herself in all her glory. But suddenly she uttered a cry. She had no longer the necklace around her neck!

Her husband, already half undressed, demanded:

"What is the matter with you?"

She turned madly towards him.

"I have—I have—I've lost Mme. Forestier's necklace."

He stood up, distracted.

"What!—how?—Impossible!"

And they looked in the folds of her dress, in the folds of her cloak, in her pockets, everywhere. They did not find it.

He asked:

"You're sure you had it on when you left the ball?"

"Yes, I felt it in the vestibule of the palace."

"But if you had lost it in the street we should have heard it fall. It must be in the cab."

"Yes. Probably. Did you take his number?"

"No. And you, didn't you notice it?"

"No."

They looked, thunderstruck, at one another. At last Loisel put on his clothes.

"I shall go back on foot," said he, "over the whole route which we have taken, to see if I can't find it."

And he went out. She sat waiting on a chair in her ball dress, without strength to go to bed, overwhelmed, without fire, without a thought.

Her husband came back about seven o'clock. He had found nothing.

He went to Police Headquarters, to the newspaper offices, to offer a reward; he went to the cab companies—everywhere, in fact, whither he was urged by the least suspicion of hope.

She waited all day, in the same condition of mad fear before this terrible calamity.

Loisel returned at night with a hollow, pale face; he had discovered nothing.

"You must write to your friend," said he, "that you have broken the clasp of her necklace, and that you are having it mended. That will give us time to turn round."

She wrote at his dictation.

At the end of a week they had lost all hope.

And Loisel, who had aged five years, declared:

"We must consider how to replace that ornament."

The next day they took the box which had contained it, and they went to the jeweler whose name was found within. He consulted his books.

"It was not I, Madame, who sold that necklace; I must simply have furnished the case."

Then they went from jeweler to jeweler, searching for a necklace like the other, consulting their memories, sick, both of them, with chagrin and with anguish.

They found, in a shop at the Palais Royal, a string of diamonds which seemed to them exactly like the one they looked for. It was worth forty thousand francs. They could have it for thirty-six.

So they begged the jeweler not to sell it for three days yet. And they made a bargain that he should buy it back for thirty-four thousand francs, in case they found the other one before the end of February.

Loisel possessed eighteen thousand francs which his father had left him. He would borrow the rest.

He did borrow, asking a thousand francs of one, five hundred of another, five louis here, three louis there. He gave notes, took up ruinous obligations, dealt with usurers, and all the race of lenders. He compromised all the rest of his life, risked his signature without even

knowing if he could meet it; and, frightened by the pains yet to come, by the black misery which was about to fall upon him, by the prospect of all the physical privations and of all the moral tortures which he was to suffer, he went to get the new necklace, putting down upon the merchant's counter thirty-six thousand francs.

When Mme. Loisel took back the necklace, Mme. Forestier said to her, with a chilly manner:

"You should have returned it sooner. I might have needed it."

She did not open the case, as her friend had so much feared. If she had detected the substitution, what would she have thought, what would she have said? Would she not have taken Mme. Loisel for a thief?

Mme. Loisel now knew the horrible existence of the needy. She took her part, moreover, all on a sudden, with heroism. That dreadful debt must be paid. She would pay it. They dismissed their servant; they changed their lodgings; they rented a garret under the roof.

She came to know what heavy housework meant and the odious cares of the kitchen. She washed the dishes, using her rosy nails on the greasy pots and pans. She washed the dirty linen, the shirts, and the dish cloths, which she dried upon a line; she carried the slops down to the street every morning, and carried up the water, stopping for breath at every landing. And, dressed like a woman of the people, she went to the fruiterer, the grocer, the butcher, her basket on her arm, bargaining, insulted, defending her miserable money sou by sou.

Each month they had to meet some notes, renew others, obtain more time.

Her husband worked in the evening making a fair copy of some tradesman's accounts, and late at night he often copied manuscript for five sous a page.

And this life lasted ten years.

At the end of ten years they had paid everything, everything, with the rates of usury, and the accumulations of the compound interest.

Mme. Loisel looked old now. She had become the woman of impoverished households—strong and hard

and rough. With frowsy hair, skirts askew, and red hands, she talked loud while washing the floor with great swishes of water. But sometimes, when her husband was at the office, she sat down near the window, and she thought of that gay evening of long ago, of that ball where she had been so beautiful and so feted.

What would have happened if she had not lost that necklace? Who knows? who knows? How life is strange and changeful! How little a thing is needed for us to be lost or to be saved!

But one Sunday, having gone to take a walk in the Champs Elysées to refresh herself from the labors of the week, she suddenly perceived a woman who was leading a child. It was Mme. Forestier, still young, still beautiful, still charming.

Mme. Loisel felt moved. Was she going to speak to her? Yes, certainly. And now that she had paid, she was going to tell her all about it. Why not?

She went up.

“Good-day, Jeanne.”

The other, astonished to be familiarly addressed by this plain goodwife, did not recognize her at all, and stammered:

“But—Madame!—I do not know—You must have mistaken.”

“No. I am Mathilde Loisel.”

Her friend uttered a cry.

“Oh, my poor Mathilde! How you are changed!”

“Yes, I have had days hard enough since I have seen you, days wretched enough—and that because of you!”

“Of me! How so?”

“Do you remember that diamond necklace which you lent me to wear at the ministerial ball?”

“Yes. Well?”

“Well, I lost it.”

“What do you mean? You brought it back.”

“I brought you back another just like it. And for this we have been ten years paying. You can understand that it was not easy for us, us who had nothing. At last it is ended, and I am very glad.”

Mme. Forestier had stopped.

"You say that you bought a necklace of diamonds to replace mine?"

"Yes. You never noticed it, then! They were very like."

And she smiled with a joy which was proud and naive at once.

Mme. Forestier, strongly moved, took her two hands.

"Oh, my poor Mathilde! Why, my necklace was paste. It was worth at most five hundred francs!"

Guy de Maupassant.

DR. HEIDEGGER'S EXPERIMENT

That very singular man old Dr. Heidegger once invited four venerable friends to meet him in his study. There were three white-bearded gentlemen—Mr. Medbourne, Colonel Killigrew and Mr. Gascoigne—and a withered gentlewoman whose name was the widow Wycherly. They were all melancholy old creatures who had been unfortunate in life, and whose greatest misfortune it was that they were not long ago in their graves. Mr. Medbourne, in the vigor of his age, had been a prosperous merchant, but had lost his all by a frantic speculation, and was now little better than a mendicant. Colonel Killigrew had wasted his best years and his health and substance in the pursuit of sinful pleasures which had given birth to a brood of pains, such as the gout and divers other torments of soul and body. Mr. Gascoigne was a ruined politician, a man of evil fame—or, at least, had been so till time had buried him from the knowledge of the present generation and made him obscure instead of infamous. As for the widow Wycherly, tradition tells us that she was a great beauty in her day, but for a long while past she had lived in deep seclusion on account of certain scandalous stories which had prejudiced the gentry of the town against her. It is a circumstance worth mentioning that each of these three old gentleman—Mr.

Medbourne, Colonel Killigrew, and Mr. Gascoigne—were early lovers of the widow Wycherly, and had once been on the point of cutting each other's throats for her sake. And before proceeding farther I will merely hint that Dr. Heidegger and all of his four guests were sometimes thought to be a little beside themselves, as is not infrequently the case with old people when worried either by present troubles or woful recollections.

"My dear old friends," said Dr. Heidegger, motioning them to be seated, "I am desirous of your assistance in one of those little experiments with which I amuse myself here in my study."

If all stories were true, Dr. Heidegger's study must have been a very curious place. It was a dim, old-fashioned chamber festooned with cobwebs and besprinkled with antique dust. Around the walls stood several oaken bookcases, the lower shelves of which were filled with rows of gigantic folios and black-letter quartos, and the upper with little parchment-covered duodecimos. Over the central bookcase was a bronze bust of Hippocrates, with which, according to some authorities, Dr. Heidegger was accustomed to hold consultations in all difficult cases of his practice. In the obscurest corner of the room stood a tall and narrow oaken closet with its door ajar, within which doubtfully appeared a skeleton. Between two of the bookcases hung a looking-glass, presenting its high and dusty plate within a tarnished gilt frame. Among many wonderful stories related of this mirror, it was fabled that the spirits of all the doctor's deceased patients dwelt within its verge and would stare him in the face whenever he looked thitherward. The opposite side of the chamber was ornamented with the full-length portrait of a young lady arrayed in the faded magnificence of silk, satin, and brocade, and with a visage as faded as her dress. Above half a century ago Dr. Heidegger had been on the point of marriage with this young lady, but, being affected with some slight disorder, she had swallowed one of her lover's prescriptions and died on the bridal-evening. The greatest curiosity of the study remains to be mentioned: it was a ponderous folio volume

bound in black leather, with massive silver clasps. There were no letters on the back, and nobody could tell the title of the book. But it was well known to be a book of magic, and once, when a chambermaid had lifted it merely to brush away the dust, the skeleton had rattled in its closet, the picture of the young lady had stepped one foot upon the floor and several ghastly faces had peeped forth from the mirror, while the brazen head of Hippocrates frowned and said, "Forbear!"

Such was Dr. Heidegger's study. On the summer afternoon of our tale a small round table as black as ebony stood in the center of the room, sustaining a cut-glass vase of beautiful form and elaborate workmanship. The sunshine came through the window between the heavy festoons of two faded damask curtains and fell directly across this vase; so that a mild splendor was reflected from it on the ashen visages of the five old people who sat around. Four champagne-glasses were also on the table.

"My dear old friends," repeated Dr. Heidegger, "may I reckon on your aid in performing an exceedingly curious experiment?"

Now, Dr. Heidegger was a very strange old gentleman whose eccentricity had become the nucleus for a thousand fantastic stories. Some of these fables—to my shame be it spoken—might possibly be traced back to mine own veracious self; and if any passages of the present tale should startle the reader's faith, I must be content to bear the stigma of a fiction monger.

When the doctor's four guests heard him talk of his proposed experiment, they anticipated nothing more wonderful than the murder of a mouse in an air-pump or the examination of a cobweb by the microscope, or some similar nonsense with which he was constantly in the habit of pestering his intimates. But without waiting for a reply Dr. Heidegger hobbled across the chamber and returned with the same ponderous folio bound in black leather which common report affirmed to be a book of magic. Undoing the silver clasps, he opened the volume and took from among its black-letter pages a rose, or what was

once a rose, though now the green leaves and crimson petals had assumed one brownish hue and the ancient flower seemed ready to crumble to dust in the doctor's hands.

"This rose," said Dr. Heidegger, with a sigh—"this same withered and crumbling flower—blossomed five and fifty years ago. It was given me by Sylvia Ward, whose portrait hangs yonder, and I meant to wear it in my bosom at our wedding. Five and fifty years it has been treasured between the leaves of this old volume. Now, would you deem it possible that this rose of half a century could ever bloom again?"

"Nonsense!" said the widow Wycherly, with a peevish toss of her head. "You might as well ask whether an old woman's wrinkled face could ever bloom again."

"See!" answered Dr. Heidegger. He uncovered the vase and threw the faded rose into the water which it contained. At first it lay lightly on the surface of the fluid, appearing to imbibe none of its moisture. Soon, however, a singular change began to be visible. The crushed and dried petals stirred and assumed a deepening tinge of crimson, as if the flower were reviving from a deathlike slumber, the slender stalk and twigs of foliage became green, and there was the rose of half a century, looking as fresh as when Sylvia Ward had first given it to her lover. It was scarcely full-blown, for some of its delicate red leaves curled modestly around its moist bosom, within which two or three dewdrops were sparkling.

"That is certainly a very pretty deception," said the doctor's friends—carelessly, however, for they had witnessed greater miracles at a conjurer's show. "Pray, how was it effected?"

"Did you never hear of the Fountain of Youth?" asked Dr. Heidegger, "which Ponce de Leon, the Spanish adventurer, went in search of two or three centuries ago?"

"But did Ponce de Leon ever find it?" said the widow Wycherly.

"No," answered Dr. Heidegger, "for he never sought it in the right place. The famous Fountain of Youth,

if I am rightly informed, is situated in the southern part of the Floridian peninsula, not far from Lake Macaco. Its source is overshadowed by several gigantic magnolias which, though numberless centuries old, have been kept as fresh as violets by the virtues of this wonderful water. An acquaintance of mine, knowing my curiosity in such matters, has sent me what you see in the vase."

"Ahem!" said Colonel Killigrew, who believed not a word of the doctor's story; "and what may be the effect of this fluid on the human frame?"

"You shall judge for yourself, my dear colonel," replied Dr. Heidegger.—"And all of you, my respected friends, are welcome to so much of this admirable fluid as may restore to you the bloom of youth. For my own part, having had much trouble in growing old, I am in no hurry to grow young again. With your permission, therefore, I will merely watch the progress of the experiment."

While he spoke Dr. Heidegger had been filling the four champagne-glasses with the water of the Fountain of Youth. It was apparently impregnated with an effervescent gas, for little bubbles were continually ascending from the depths of the glasses and bursting in silvery spray at the surface. As the liquor diffused a pleasant perfume, the old people doubted not that it possessed cordial and comfortable properties, and, though utter skeptics as to its rejuvenescent power, they were inclined to swallow it at once. But Dr. Heidegger besought them to stay a moment.

"Before you drink, my respectable old friends," said he, "it would be well that, with the experience of a lifetime to direct you, you should draw up a few general rules for your guidance in passing a second time through the perils of youth. Think what a sin and shame it would be if, with your peculiar advantages, you should not become patterns of virtue and wisdom to all the young people of the age!"

The doctor's four venerable friends made him no answer except by a feeble and tremulous laugh, so very ridiculous was the idea that, knowing how closely Repentance

treads behind the steps of Error, they should ever go astray again.

"Drink, then," said the doctor, bowing; "I rejoice that I have so well selected the subjects of my experiment."

With palsied hands they raised the glasses to their lips. The liquor, if it really possessed such virtues as Dr. Heidegger imputed to it, could not have been bestowed on four human beings who needed it more wofully. They looked as if they had never known what youth or pleasure was, but had been the offspring of Nature's dotage, and always the gray, decrepit, sapless, miserable creatures who now sat stooping round the doctor's table without life enough in their souls or bodies to be animated even by the prospect of growing young again. They drank off the water and replaced their glasses on the table.

Assuredly, there was an almost immediate improvement in the aspect of the party—not unlike what might have been produced by a glass of generous wine—together with a sudden glow of cheerful sunshine, brightening over all their visages at once. There was a healthful suffusion on their cheeks instead of the ashen hue that had made them look so corpse-like. They gazed at one another, and fancied that some magic power had really begun to smooth away the deep and sad inscriptions which Father Time had been so long engraving on their brows. The widow Wycherly adjusted her cap, for she felt almost like a woman again.

"Give us more of this wondrous water," cried they, eagerly. "We are younger, but we are still too old. Quick! give us more!"

"Patience, patience!" quoth Dr. Heidegger, who sat watching the experiment with philosophic coolness. "You have been a long time growing old; surely you might be content to grow young in half an hour. But the water is at your service." Again he filled their glasses with the liquor of youth, enough of which still remained in the vase to turn half the old people in the city to the age of their own grandchildren.

While the bubbles were yet sparkling on the brim, the doctor's four guests snatched their glasses from the table

and swallowed the contents at a single gulp. Was it delusion? Even while the draught was passing down their throats it seemed to have wrought a change on their whole systems. Their eyes grew clear and bright; a dark shade deepened among their silvery locks; they sat around the table three gentlemen of middle age and a woman hardly beyond her buxom prime.

“My dear widow, you are charming!” cried Colonel Killigrew, whose eyes had been fixed upon her face while the shadows of age were flitting from it like darkness from the crimson daybreak.

The fair widow knew of old that Colonel Killigrew’s compliments were not always measured by sober truth; so she started up and ran to the mirror, still dreading that the ugly visage of an old woman would meet her gaze.

Meanwhile, the three gentlemen behaved in such a manner as proved that the water of the Fountain of Youth possessed some intoxicating qualities—unless, indeed, their exhilaration of spirits were merely a light-some dizziness caused by the sudden removal of the weight of years. Mr. Gascoigne’s mind seemed to run on political topics, but whether relating to the past, present, or future could not easily be determined, since the same ideas and phrases have been in vogue these fifty years. Now he rattled forth full-throated sentences about patriotism, national glory, and the people’s rights; now he muttered some perilous stuff or other in a sly and doubtful whisper, so cautiously that even his own conscience could scarcely catch the secret; and now, again, he spoke in measured accents and a deeply-deferential tone, as if a royal ear were listening to his well-turned periods. Colonel Killigrew all this time had been trolling forth a jolly bottle song and ringing his glass in symphony with the chorus, while his eyes wandered toward the buxom figure of the widow Wycherly. On the other side of the table, Mr. Medbourne was involved in a calculation of dollars and cents with which was strangely intermingled a project for supplying the East Indies with ice by harnessing a team of whales to the polar icebergs. As for

the widow Wycherly, she stood before the mirror courtesying and simpering to her own image and greeting it as the friend whom she loved better than all the world besides. She thrust her face close to the glass to see whether some long-remembered wrinkle or crow's-foot had indeed vanished; she examined whether the snow had so entirely melted from her hair that the venerable cap could be safely thrown aside. At last, turning briskly away, she came with a sort of dancing step to the table.

"My dear old doctor," cried she, "pray favor me with another glass."

"Certainly, my dear madam—certainly," replied the complaisant doctor. "See! I have already filled the glasses."

There, in fact, stood the four glasses brimful of this wonderful water, the delicate spray of which, as it effervesced from the surface, resembled the tremulous glitter of diamonds.

It was now so nearly sunset that the chamber had grown duskier than ever, but a mild and moonlike splendor gleamed from within the vase and rested alike on the four guests and on the doctor's venerable figure. He sat in a high-backed, elaborately-carved oaken arm-chair with a gray dignity of aspect that might have well befitted that very Father Time whose power had never been disputed save by this fortunate company. Even while quaffing the third draught of the Fountain of Youth, they were almost awed by the expression of his mysterious visage. But the next moment the exhilarating gush of young life shot through their veins. They were now in the happy prime of youth. Age, with its miserable train of cares and sorrows and diseases, was remembered only as the trouble of a dream from which they had joyously awoke. The fresh gloss of the soul, so early lost and without which the world's successive scenes had been but a gallery of faded pictures, again threw its enchantment over all their prospects. They felt like new-created beings in a new-created universe.

"We are young! We are young!" they cried, exultingly.

Youth, like the extremity of age, had effaced the strongly-marked characteristics of middle life and mutually assimilated them all. They were a group of merry youngsters almost maddened with the exuberant frolicsomeness of their years. The most singular effect of their gayety was an impulse to mock the infirmity and decrepitude of which they had so lately been the victims. They laughed loudly at their old-fashioned attire—the wide-skirted coats and flapped waistcoats of the young men and the ancient cap and gown of the blooming girl. One limped across the floor like a gouty grandfather; one set a pair of spectacles astride of his nose and pretended to pore over the black-letter pages of the book of magic; a third seated himself in an arm-chair and strove to imitate the venerable dignity of Dr. Heidegger. Then all shouted mirthfully and leaped about the room.

The widow Wycherly—if so fresh a damsel could be called a widow—tripped up to the doctor's chair with a mischievous merriment in her rosy face.

“Doctor, you dear old soul,” cried she, “get up and dance with me;” and then the four young people laughed louder than ever to think what a queer figure the poor old doctor would cut.

“Pray excuse me,” answered the doctor, quietly. “I am old and rheumatic; and my dancing-days were over long ago. But either of these gay young gentlemen will be glad of so pretty a partner.”

“Dance with me, Clara,” cried Colonel Killigrew.

“No, no! I will be her partner,” shouted Mr. Gascoigne.

“She promised me her hand fifty years ago,” exclaimed Mr. Medbourne.

They all gathered round her. One caught both her hands in his passionate grasp, another threw his arm about her waist, the third buried his hand among the glossy curls that clustered beneath the widow's cap. Blushing, panting, struggling, chiding, laughing, her warm breath fanning each of their faces by turns, she strove to disengage herself, yet still remained in their triple embrace. Never was there a livelier picture of youthful rivalry, with bewitching beauty for the prize. Yet, by

a strange deception, owing to the duskiness of the chamber and the antique dresses which they still wore, the tall mirror is said to have reflected the figures of the three old, gray, withered grandsires ridiculously contending for the skinny ugliness of a shriveled grandam. But they were young: their burning passions proved them so.

Inflamed to madness by the coquetry of the girl-widow, who neither granted nor quite withheld her favors, the three rivals began to interchange threatening glances. Still keeping hold of the fair prize, they grappled fiercely at one another's throats. As they struggled to and fro the table was overturned and the vase dashed into a thousand fragments. The precious Water of Youth flowed in a bright stream across the floor, moistening the wings of a butterfly which, grown old in the decline of summer, had alighted there to die. The insect fluttered lightly through the chamber and settled on the snowy head of Dr. Heidegger.

"Come, come, gentlemen! Come, Madam Wycherly!" exclaimed the doctor. "I really must protest against this riot."

They stood still and shivered, for it seemed as if gray Time were calling them back from their sunny youth far down into the chill and darksome vale of years. They looked at old Dr. Heidegger, who sat in his carved arm-chair holding the rose of half a century, which he had rescued from among the fragments of the shattered vase. At the motion of his hand the four rioters resumed their seats—the more readily because their violent exertions had wearied them, youthful though they were.

"My poor Sylvia's rose!" ejaculated Dr. Heidegger, holding it in the light of the sunset clouds. "It appears to be fading again."

And so it was. Even while the party were looking at it the flower continued to shrivel up, till it became as dry and fragile as when the doctor had first thrown it into the vase. He shook off the few drops of moisture which clung to its petals.

"I love it as well thus as in its dewy freshness," observed he, pressing the withered rose to his withered lips.

While he spoke the butterfly fluttered down from the doctor's snowy head and fell upon the floor. His guests shivered again. A strange chillness—whether of the body or spirit they could not tell—was creeping gradually over them all. They gazed at one another, and fancied that each fleeting moment snatched away a charm and left a deepening furrow where none had been before. Was it an illusion? Had the changes of a lifetime been crowded into so brief a space, and were they now four aged people sitting with their old friend Dr. Heidegger?

“Are we grown old again so soon?” cried they, dolefully.

In truth, they had. The Water of Youth possessed merely a virtue more transient than that of wine; the delirium which it created had effervesced away. Yes, they were old again. With a shuddering impulse that showed her a woman still, the widow clasped her skinny hands before her face and wished that the coffin-lid were over it, since it could be no longer beautiful.

“Yes, friends, ye are old again,” said Dr. Heidegger, “and lo! the Water of Youth is all lavished on the ground. Well, I bemoan it not; for if the fountain gushed at my very doorstep, I would not stoop to bathe my lips in it—no, though its delirium were for years instead of moments. Such is the lesson ye have taught me.”

But the doctor's four friends had taught no such lesson to themselves. They resolved forthwith to make a pilgrimage to Florida and quaff at morning, noon, and night from the Fountain of Youth.

Nathaniel Hawthorne: *Twice Told Tales*.

THE YELLOW BURGEE

There was me and Clarence O'Shay; and Fergus of Oregon; and Bo's'n Nutt of Newburyport, so called, though no bo's'n at all; and Brawney Thompson, the new recruit; and we was the crew of her tops—all bottled with fight, and guessing what next, with the department

tight as a drum with information, for yet having none to impart. By the hot twilight of the Keys the clot of us would rally under the jackstaff for general expansion and repartee, till we was the gist of society. Then Bo's'n Nutt would play rubber with the truth of his troubles in being a boy in Newburyport, and me to draw the giant's bow of me doings in China; then Clarence would dance a solemn sand-dance with his feet, and Fergus of Oregon would speak: "Flap-doodle, flap-doodle—fall in for your boodle!"—till at last the nigger with his infant banjo, and Brawney Thompson with his beautiful nasal voice, would sing music to words spliced by Brawney himself while laying awake to think of his Madeleine, like:

The first I knew I had me tears, I found me eyes afloat,
To see the Stars and Stripes at Guan-ta-na-mo;
The first I knew I had me heart, I found it in me throat,
To see the Stars and Stripes at Guan-ta-na-mo,

which would start with the stamping of feet, and end with silence; for all the rhymes that Brawney wrote would finish sad.

One morning we hove up in the middle of the night, and bid adieu without saying good-by; and our hopes of gitting something for our ammunition was certified by the invent of a stranger. He wore knee-breeches and a Walter Raleigh beard; and he stops at the gang-boards, with his nose smelling at the rifle of the marine.

"Who the devil do ye wish to see, sir?" says the guard, or such words.

The knee-breeches gives a shirk of the eyebrows, and waves at the rifle to abolish it.

"Tell 'em I've came," says he,—“and they don't seem to expect me!” he says in surprise. “Call the captain and his officers,” says he, granting the privilege with grace.

“What name, sir?” say the marine, polite as a dancing-master, and aching to push him in the countenance with his piece.

“What name!” says the knee-breeches. “Ain’t me face been printed often enough, with me biography? Don’t ye read? I’m Kuhlamar,” says he, with a pause to let it sink home,—“Kuhlamar, the War Critic of the ‘Daily Flash,’ ” says he, staring at the rifle, and ignoring the cold eye in the white breeches behind it. “I never met such a crazy divil at the door of the Pope!” says he.

And says the marine, stiff as St. Peter:

“Tell the deck one of them reporters—”

“Reporters!” says the knee-breeches. “What brand of laughing-stock are ye? Don’t you know I’m the Special Envoy of the ‘Daily Flash’?”

So by letters of introduction and command he saddled himself on the crowded ward-room mess, and begun roosting up and down the quarter-deck. I never hear what happened; but after the first meal I see the War Critic smoking to himself, with the officers casting eyes and nodding in general opinion; and he never seen anything but the sea before him. And the same thereafter—him total oblivious, but writing down notes of his thoughts disfavorable. Brawney and me and Clarence lit out for the top on a call for quarters. ‘Twas command of silence, with everything trained on an innocent bark on the bow, and all hands mumbling, “Too much drill,” when a snicker arose, and with it the War Critic. There was two revolvers slung to his waist, with ammunition to take Gibraltar; and a spy-glass, a canteen of booze, and a roll of bunting tied to him, along with a photograph-box; and his coat was a patchwork of pockets, with maps and pads, and ink-druling pencils, and yeller glasses to give color to the Spanish war. The red cross was sewed on both sleeves, and his big white helmet made him look like a snail a-dangling of its in’ards.

“ ’Tis only a drill,” says he, through his spy-glass, as kind as your grandfather. “And ye needn’t fear any fighting, for I have a letter from me friends at court.”

“Silence, there!” yells up Bo’s’n Nutt. The War Critic give him the piteous smile, and killed time by taking the bo’s’n with his photograph-box. By and by he strolled with all toggerly through the living-space; and they

stared before him, and cat-called behind him; but he turned, and says not to be scared of him, and he conversed as indulgent as with lunatics. He had private information as to her destination, he says,—and they all crowded to the bait,—but 't was not good policy to tell, he says, at the present time. But, from his experience, which extended from Chili to China, by way of Turkey, he would say that the war would be but a naval parade, with a little bluffing at long range, and a killing or two. It grieved him sore, for fighting was his joy. Anyway, he says, his career was the most interesting he ever hear of, and his talents the most extraordinary. 'T was always him first in with the news, which was why all them that ranked as but plain correspondents was down on him.

'T was him that first noticed the Johnstown flood; and he jumped aboard of it with a hen-coop, to have the front seat and arrive at the telegraph. And he was the only one living that had interviewed the Czar—the old Czar watching with two cocked revolvers to see if he slipped a cog in his etiquette. And he was the same that advised with the King of Greece for exterminating the Turks; but the King got grouty, and, bedad, the War Critic brought over the Turks to knock him into a pint-pot. But he says he was tired of herding with them kings and queens; for they was a stuck-up lot, he says, with their noses always in your pedigree; but 't was superior to laying at Washington, and driving a string of congressmen with the brand of the "Flash." The only decent life was making war; and he was planting the mines for a general conflict of the powers, which, he says, the world needed to draw its bad blood. And by the end of his two hours' ego-biography there was none left but Brawney Thompson, that stood sizing him up, and Bo's'n Nutt, that was aching to tell a lie of his own, but couldn't get the wedge in. The War Critic fastens on Brawney, and commences to educate him, from telling him how to wear a beard to how inferior he was to the bluejackets of Europe. The navy was bad enough, says he, but the regular army on parade would make the Emperor of Germany fall off his horse. And he says he always passed himself for an

Austrian abroad, for shame of the United States being so raw in the particulars of formality.

"For I see your intelligence," says the War Critic, "and by your conversation more of a gentleman than them officers aft."

And Brawney says, "Thank ye," which was the first he had opened his mouth.

"So it may occur I need ye," says the War Critic, dropping his tone. "The captain and his staff conspires to beat me out of sending the news; but the poor divils don't know what it is to go up ag'in the 'Daily Flash'; for ye can lay to it I'm the big thing aboard this craft. 'T is all right to be singing songs of the star-spangled rag, but the 'Daily Flash' will be doing politics when one-legged patriots is starving on ten-dollar pensions; and ye can think of that. I'll throw up me hat with the next, and yell 'Hail, Columbia!'" says he; "but the 'Daily Flash' will give the people the news, if it scuttles the Ship of State to git it; and if the fact is worth money to ye, I may see ye again," says he, walking off.

"Eh? What?" says Brawney, staring after him. "The blackguard!" says Brawney, coming to himself. "And he called the flag a rag—and I never pulled out his Austrian beard; and what will me Madeleine say to that?"

"'Twas the best thing ye never did," says I, "and the future will prove it."

We made Cape Haitien without adventures, and the launch was called away for despatches. The War Critic saunters down, and sets himself in the stern-sheets, like the admiral of all he surveyed.

"Ye'll have to go back on board, sir," says little Ensign Charlie.

"What for?" says the War Critic. "Is the launch disabled?"

"No, sir," says Charlie. "'T is because ye can't go ashore."

"I'll look into that!" says the War Critic, climbing the ladder. "Ye can hold the launch till I confer with the captain," says he.

"Cast off!" says Charlie; and the launch rolled away to

town. We waited for her long in the dark, me and Brawney, chewing tobacco in the eyes of the ship, and speculating on what was the chances of meeting the foe. Then for the first time since the launch departed the War Critic appeared, and motioned silent for Brawney to draw to one side. They fumbled together in the dark without speaking audible, and I was glad to see 'em break away without Brawney smashing him for having miscalled the flag. The War Critic wandered away in the gloom, and Brawney drags me double-quick to a den in the torpedo-flat.

"He gimme ten dollars and a tin can," says Brawney. "He says I must drop the can to the bumboat with the sail."

"And—?" says I.

"I dropped the can," says Brawney. "But first I drew the charge. Listen to it, directed to one at Cape Haitien:

"I am able to announce exclusively that our destination, which for strategic reasons of greatest importance government has so far succeeded in concealing, is Isle of Pines. As soon as this fact is known, change of destination will become necessary, that enemy may not profit by disclosure. Influence of 'Flash's' War Critic is being thrown toward early crushing of enemy in these waters, at whatever sacrifice. 'Flash's' Special Envoy will fly yellow burgee of 'Daily Flash' when ship goes into action; and flag of 'Flash' will never be taken down.

"Special to Mulliraw: Flag is no fake. Shall fly it long enough for snap-shot in confusion of some prize-capture. Try hot oven on this sea-mule and his officers: they have thrown me down everywhere.

"K."

In ten minutes Brawney had red-taped himself to Old Handsome in his cabin.

"Hm!" says the Old Man, tapping his desk, "and what did ye intend with the ten dollars?"

"'T was cross-purpose," says Brawney—"to send it to me Madeleine, or give it to the Red Cross, or light me pipe with it."

The Old Man went on tapping.

“But,” says Brawney, “we not being yet married, and such dirty money as that,—why, what would me Madeleine think? And maybe the Red Cross—or else—” says he, stammering.

“This money,” says the Old Man, handing back the bill, “is from the ‘Daily Flash.’ It came cent by cent from the dirty palms of discivilization, paying tribute to the king of the garbage-heap,” says he—or such words. “There’s plenty of honest money over there,” says he, pointing to the United States. “The Red Cross don’t have to draw on the maggot of license and corruption,” says he—or such words. “There’s five ships of the enemy in these waters, and we’ve got to git past ’em. This man would deliver us all to Davy Jones for the sake of glorifying himself in his newspaper. And what was it he called the flag?”

“By St. Peter-in-the-Pilot-house!” exclaims Brawney at the thought of it. In the scratch of a match ye could smell the ten dollars in his palm, consuming in flames.

The Old Man watched the ashes being poured into Brawney’s cap; then he pulled out a new ten from his own salary.

“Send that to your Madeleine,” says he, “and tell her, as far as this ship has its keel, I know a good man.”

“Thank ye, sir—yes, sir; beg pardon, sir!” says Brawney with the new bill in his hand; “but, anyway, me Madeleine has dough of her own; and, anyway, the money is only come by virtue of a d—d squid aboard that would spit ink on the flag; and I think it would twice more please the taste of me Madeleine to take it back for the Red Cross, sir!”

Bo’s’n Nutt says he see the same thing took place in Newburyport when he was a boy; but it’s a lie.

We was a grumblin’ lot. Drill and clear and juggle with dummy loads till I thought I would forgit me brain! The Old Man had reinforced the upper top, and mounted a three-pounder, being special for secondary battery; and he had placed behind it the eye of Clarence O’Shay, such that Clarence would grin in his sleep, and would sit at the breech by the hour, shaking insults at the sky-line. But

never a bull-rag showed up. We passed to the north of Porto Rico, and begun sliding down the Antilles, till it seemed we had fooled the enemy's squadron, with no chance of excitement more; and Brawney mumbled we was nothing but a picnic for a news-scavenger. The four niggers would clump apart, in disgrace for preserving good nature. Every false alarm, by day or night, the War Critic would haul himself to the top in all his baggage; for he told Brawney the top was the softest place in case of surprise, and him too high-salaried a man to be risking his skin unnecessary. On deck he treated us shy for a while after Cape Haitien; but at length he come with a bunch of cigars from his giveaway box. Did one of us ever meet with adventures? says he; and what made us enlist at such jobs?

'T was the speech of his congressman that made him enlist, says Brawney—which 't was thought of so highly that Congress had it printed and sent free through the mails. The speech says, who was it, with none dependent, and having his manhood, that would sit home in his slippers, with a lot of bull-ragging fandangos pulling at the tail of the eagle? And Brawney says that hit him, and he give up an eighty-dollar job. The War Critic let out a laugh.

"'T was me that wrote it for him," says he; "for your congressman was fuddled as a snake in alcohol. 'T was considered the best he ever made, and he had it printed at his own expense. 'T is a cheap little rascal, your congressman; ye can buy him for ten dollars or more; but a man that won't stay bought," says the War Critic, with virtuous indignation, "I have no use for!"

Brawney threw the cigar over his head, and walked off. I heard him mumbling over it in the middle of the night, when, by the regulations, he ought to be sleeping.

"And she and me setting up to finish it!" says he; "and crying, and patting me on the shoulder!"

He went on berating to himself, with the whole of us swaying in the gloom, and having bad dreams of peace declared, like two hundred cods in a cockpit.

"Here we are walking on the water," says he, "at

chambermaids' wages, for the joy of defending the finest flag afloat, when along comes this gromet-mouthed gas-vat to foul our course, and bringing the powers of Congress behind him! And he called it a rag to me face!" says he, beating the rivets overhead.

I heard five bells. The nigger and Bo's'n Nutt competed with snores like twins. The night was escaping without drill.

"Is the whole government rotten, and the universe?" says Brawney; "and the President's message wrote by some husky reporter that loafers at the White House gate? And me leaving me Madeleine!" And he pulls out a photograph and tries to see it.

"Don't git so honest ye think you're the only one," says I.

"Well, there's me Madeleine that's square," says Brawney; "ye can lay to that. And Father Moore I will swear to, though no Catholic; and, bedad, you and Old Handsome would kick the divil, if he come with absolution. But the rest of mankind, I mistrust, would have took the ten dollars; and some of them senators, too."

"Have ye been reading the 'Flash'?" says I. "And the world but a magazine of crime, and the flag but for fools, by inference?"

"'T is the finest flag since God made bunting!" says Brawney. "And—" says he.

We all heeled over, caused by the helm brought hard to port. By an instinct of hope, ten others and Bo's'n Nutt and me slid out barefoot, and ducked for the hatch.

The sea was a lavender Japanese crape; a pasty fog picked its skirts across us, with the moon shining through like a paper screen. We lumbered the bit of a swell like a blind blue dripping shape of lead for our war-paint, with our funnels daubing ag'in' the sky; and the little six-pounders sniffed over the berthings, and the big rifles stared with their thoughts nine miles in space. She come at a gathering gait; two brown ribbons streamed behind, singing a song of sixpence to a sea that curled and kissed her lines in admiration. Her pilot-house rushing in a point like an arrow, as if she would say: "I'm a round

nine thousand tons of steel, and I ride by the quest of freedom."

Nutt asked me and I asked Nutt. All we see was the Old Man making for the bridge. Clarence was gazing ahead from the jack-staff, in his little square coat. I give me double cough. Clarence stuck out a thumb to the waters, and I see a faint line of bubbles—the wake of a steamer, not five minutes old.

"Are ye seasick?" says the War Critic, over me shoulder. "What is it up?" says he, seeing two orderlies dash for below. "What did ye see?" says he, leaning with haste into Clarence's ear.

"Keep that reporter abaft the davits!" says a dark voice.

"Don't git excited!" worries the War Critic, with Brawney Thompson helping his retreat. "'Reporter'! I'll black-list these jumping-jacks!" says he to me.

But I see a torrent of silent legs up-pouring. "Clear ship!" I says to meself. "Has the Old Man found his quarry?" says I, me heart on a jig. I swallowed meself in the melee.

"Pleasant to see something doing," the War Critic was observing, taking the ladder for the upper deck. A half-dozen stokers, risking their hides to see what was up before they dropped down to the boiler-hell, come flying, and shouldered him up like a hod of plaster. The coil of a boat-fall lowered away, and carried his props from under him. Somebody harpooned him in the back with a loose hatch-batten, and a crew of bare-breasted spirits snatched him aft in the bight of a length of hose. In the dark, the gallop of men and marines, landsmen and idlers, tooth and nail, like a rally of ants, bedazzled his wits. He slid for home base astride of a stream from a two-inch nozzle, and he chased himself up the mast in the quiet of "all divisions heard from." He met Brawney Thompson sliding down from the peak with a smile.

"The finest, freest war-ribbon that ever topped God's green!" says Brawney, looking back. "And *me* a-setting ye there, at dawn on this day of our Lord that may God send the enemy! What would me Madeleine say to that?"

"Silence!" went everywhere.

"I had hopes," whispered the War Critic; "but 't is only another sham."

Clarence set by the breech of his piece, with his eyes in the water. The bubbles had grown to suds.

"I seen the corn-paper stumps of their cigarettes!" whispers Clarence.

But the crews of the rapid-fires on deck had seen no suds; and worse in the turrets. 'T was plain cold feet and wet gratings and vituperation inside, with little more on but trousers. "Have over, and back to our snores!" they muttered; but there they stood, with their toes turned up. The boilers begun to growl. 'T was one bell.

"Don't strike that bell!" says a sudden voice.

"Eh?" says the six pounders, scared at their rising hopes.

We took up another two knots to the hour; and ye could tell that below they was shoving the soot to beat the divil with a new batch of souls, and the oilers and water-tenders crawling like bugs in the belly of a whale.

"Well, I suppose them fellers at the small guns on deck would git the brunt of it," says the War Critic.

"Silence!" says Bo's'n Nutt, from beneath.

"Silence!" says I under breath, "for we're attending a wake."

Which the War Critic put in his book; for the color of day was bleaching the mist that shrouded us, and the situation plain to all.

"'T will turn out a Portegees!" mumbles Clarence, berating Providence. "'T is always so when we git our mouths puckered!"

"It might be a prize," says the War Critic, lighting his cigar, in the face of the regulations, "and money coming to ye. They would owe me some, too; for 't was action of mine that throwed us here," says he, smiling at his thoughts.

"This sea-sheriff business can go to the divil," says Brawney. "I'm looking for a prize that thinks it can shoot target with Yankee Doodle."

"'T will be but a Scotch man-o'-war full of greasers!" says Clarence, doleful; "and me grandmother calling me a dove!"

I give a snort. Had the wind come astern of the funnels? Divil a bit; but I smelt smoke with the fog. Was it true, and the craft ahead had crossed our bows?

"What have ye?" says Clarence. "Make no noses at me!" says he, in his evil mood.

"Smoke in the wind!" I bellered, believing me nostrils.

"In the wind?" says the voice-pipe.

"In the wind, sir!" says I.

The War Critic laid down his roll of bunting—the yellor burgee of the "Daily Flash." I see through me glass the mist take shape, then dissolve.

"Military top, sir!" I bawled. "Two points for'ard the beam; no ship of ours, sir.

Approbations rose from the deck in murmurs. "There was two of them, then," says every one, "for the wake of the other was straight and fresh." The air was thick with prayers that it might not be friends.

"Two of 'em!" says the War Critic. "And us stumbling between 'em with colors set! Shout the warning!" says he.

We swung away to put the two in the fog to port of us, and the starboard sections groaned.

"The Old Man finds his senses," says the War Critic. "He'll be away and from sight, and they never guess!"

But we took up our course again. The breeze waked up and rubbed the eyes of the morning, as Brawney says; and the fog swept clear for a thousand yards, then for another thousand; and then, like throwed on stereoptican, it showed us a big armored cruiser, with our broad-side trained on it like needles on the pole. She was asleep, with no colors shown: and your toes clenched in your boots.

"Stick up your rag!" says Clarence, shaking his fist; for the marks of the breed stood out on every stitch of her. "Have ye nothing but hind legs, ye bull-ragging beast?" says he.

'T was as though she heard, for she let out a scream like a nightmare; and our steam siren yelled for watertight doors.

"What?" says the War Critic. "Hear the answering toots in the fog! Don't he know 't is the first art of war not to fight with a superior force?"

"Ship ahoy! What ship is that?" says the Old Man, speaking across her bows through our for'ard five-inch rifle. They was flying up and down her decks like rats, and she edged away toward the fog.

"Ship ahoy, there! What ship is that?" roars the Old Man, tapping a hole through the fandango's funnel.

I see the flag of the enemy break from her peak, and a dozen juts of smoke from her side. A howl of delight arose to me ears, and the sea splashed up like a school of whales. Our eights and half our fives was up and away with the bugle-blast, with the six-pounders barking at their heels; and the sun jumped out of the night, with its chin on the sky-line, to see what the divil was doing. It see the moon as pale as a shirt, and the fog skedaddling with its petticoats up, and hell's tune playing 'twixt two little specks at sea, with me and Brawney and Clarence little specks at sea, with me and Brawney and Clarence was cursing with finest freedom ye ever hear, for he was out of range. The War Critic stood hold of the mast, biting his teeth, and his eyes in a stare. Brawney stood ready to serve, with a gaze and a smile; and he looked up at the flag standing sharp to the breeze, where he put it, and he laughed and slapped his thigh. Never such joy I've known in the forty years since me mother's lap. Natural lust of destruction flying loose in me heart; bottled and corked essence of peace-drill and peace-subordination, bedad, and peace-idleness of twenty years' cruising, dropped, with a rifle-crack, like a cangue from off me neck. The sides of me brain worked separate together. "Let it exude," says the one, "free!—Free's a balloon!" And the other howled:

"Gunboat coming out of the fog, sir—enemy's flag!"

The Old Man and his mate stood likè the rear of an observation car, roaring remarks in each other's ears.

The hot light of day rode the bare backs along the berthing till each man steamed like a horse on ice. We was easing the gap between us and the foe, and her consort hovering down to the region of six-inch remonstrance, and landing by luck with a shell through our armor-belt that sent the carpenter sprinting for the protective deck with nine kinds of patches. A six-pounder went through me hair, I thought; and the War Critic felt it, and kneeled down to the trap, staring at the deck fifty feet below. But he got up again, and jammed his helmet over his eyes.

"The coal-bunkers was the place to be," he says to himself.

"Nineteen hundred yards!" yells Fergus of Oregon, his head through the trap.

Clarence stopped his profanity. By the holy powers, I see the two corners of his mouth from the back of his head, and he had no nerves. He settled as quick to the breech of his piece as a squalling baby put to the breast, and he took aim like wiping the rim of your glass with a doily before ye swig your beer; and we never heard no more from him but the smell of saltpeter. The air whistled like a typhoon, and there was Fergus, still with his head and shoulders through, his chin on his breast, like thinking.

"My God!" says the War Critic, drawing away from Fergus.

We all howled, for we see the gunboat doubled up with an eight-inch shell in her brain, and not knowing where to go. The big fandango landed on our for'ard torpedo-flat, and knocked a Whitehead into watchworks, and blowed an ensign off the navy-register.

"She's on fire in the quarters, sir!" I yelled with one eye. With the other I seen 'em discumbering Fergus from the trap. He hadn't no legs. The War Critic gazed at him dumb, the photograph-box askew on his back. A shower of hot commas exploded under my jaw.

"Bedad, they're loading with barbed-wire fence!" says Brawney, observing the flesh-cuts on him and me; "and they've tore out a gap in the list of junior grade in the

after-turret; and there's White Olsen keeled over and bit a piece from an officer's shoe."

"Enemy's stern caved in by a shell, sir. Enemy's squadron approaching ahead—three ships!" says I.

Our port anchor-davit arose off the deck at the news, and jumped into the sea, with a solid shot behind; and I thought the War Critic would dive after it.

"Look here; ain't we got enough?" say he, clutching Clarence's shoulder with sharp finger-nails. But Clarence thought it was a wound, and would pay no attention. "Man, man," says the War Critic, "leave 'em alone—leave 'em alone!"

The big fandango was winded a bit, or her tailfeathers broke, for she slowed and swung. The Old Man smiled. We started all steam to cross her bow—to run 'atween her and her mate, for the love of raking her fore and aft, though the two of 'em snatched us bald. "There's three fresh craft a-vomiting smoke behind," says I, freeing me face of nose-bleed; and I laughed such a devil's own joy of a laugh as ye can't brew the liquor to bring. A hot shot went between Clarence and his elbow.

"Did ye find my card beneath your hammick door?" yells Clarence, like a row in a tenement. "Take that, ye yellor baboons!"

"I'll give ye a hundred dollars to jam your breech; they must leave us alone!" says the War Critic, fanning the air with a hand-load of bills for the second time in Clarence's face. Clarence took the wad, and fed it into the breech of his piece; and the next five shots cost the "Daily Flash" twenty dollars apiece; and Clarence went right on.

So we shot the rapids, starboard and port, great guns and small, Bo's'n Nutt and Clarence O'Shay, at nineteen knots for the other world. I says good-by to meself. I says, "Some angel will be walking ye by the ear in a minute, and there's an awkward thing or two he'll be asking ye about. What?" says I. "Are we afloat? That's the nigger down there with his leg broke; and Clarence's scalp has a piece sticking up like the door of a spider;

and the War Critic has a vaccination on his arm, but too busy counting his sins to know it; and, bedad, we're afloat."

"Git away!" says Clarence, straining to train the three-pounder astern.

There come a yell from the lower top. A gasp of joy, and some stripes of red passed over me eyes. 'T was the colors, brought down by the breaking of the block; and 't was the War Critic clutching it, hauling it in like the divil after your soul.

"We've struck! We've saved our skins!" he says, falling on the flag to hide it.

Did ye ever hear Yankee Doodle roar when a tuft of his feathers was pulled? I heard a shout as big as North America. Me and Clarence and the bloody crew of Bo's'n Nutt collided in a bunch; but we was all behind. The War Critic laid in the ruins of his tackle. 'T was Brawney Thompson that shinned the bare pole, with the bunting in his teeth, and a thousand yells to boost him. A flight of whistling iron went by, and for answer the forty-five stars stood stiff to the breeze. Brawney gripped the pole. He turned his face and looked down strange in me eye, and me and Clarence went up after him. We all slid back in a heap, and we set Brawney ag'in' the mast, and tore his shirt apart, his head rolling like an apple on its stem. The little sky-terrier begun barking again in the hands of a new detail—six of us crammed in a space fit for three; and I couldn't hear what Brawney was trying to tell. The seconds went by in a daze, and we couldn't see nothing to do. Then the bugle blowed, and a howling din of silence beat on your brain to break your heart. I put me ear to Brawney's mouth; but all I hear was the tinkle of the nigger with the broken leg, in the top below, and his infant banjo, to the tune:

"The first I knew I had me heart, I found it in me throat,
To see the Stars and Stripes at Guan-ta-na-mo."

"I'll give ten dollars for a flask of liquor!" says the War Critic. "I've got to git down from here, somehow!" says he.

We heard a boom away astern. Brawney opened his eyes.

"Commenced again?" says he.

"The fandango has blowed up her small-arms magazine; I judge," says I; "and her mates galloping to hold her head out of water."

"Fandango blowed up!" says Brawney, with the end of a smile. "Lemme see—lemme see! Ah," he says, "your glass is all fog! I can't see a blank thing! But that's the flag!" he says, his head reeling back. "Well, it ain't no rag, is it? And only a minute ago—and what would me Madeleine say to that?"

Then he didn't speak no more; and 't was the first time I ever see Clarence afraid.

We laid Brawney down on a six-pounder grating, wrapped in a flag, with the rest. The Old Man tightened his lips to look at him. The War Critic, in the wreck of his helmet, came out of the mast, hanging to what he could, gazing at the seams in the deck.

"Here's a bit of bunting found in the top, sir," says the mate to the Old Man; and he unrolls the yeller burgee of the "Daily Flash."

"I want to see you, sir!" says the Old Man, eyes fixed on the War Critic like two eight-inch guns.

The War Critic straightened himself a bit, and raised his head. There were two hundred half-naked men facing him with folded arms, and no place for him to look.

Mr. Chyne," says the Old Man, "wrap the body of Brawney Thompson in the same flag he rescued from this man Kuhlamar. When Thompson goes into the sea, let the flag go with him. Mr. Kuhlamar, if the enemy had been shooting more to the gain of the United States, and less to its loss," says the Old Man, "I would be heaving *you* overboard—bagged in your own quarantine rag, which is the symbol of your soul."

I see five little specks away in our wake, under a pall of smoke. I see Buck Williams, propped ag'in' the berthing, in tears, and his banjo with a broken string. I thought of Brawney's Madeleine—she and him in the light of a lamp

at home, with their heads together over the speech that the congressman didn't write.

"The first I knew I had me heart, I found it in me throat!" says I with me eyes on the flag at the peak. "And what will his Madeleine say to that?"

Chester Bailey Fernald: *Under the Jack-staff*. (Copyright, 1898, by The Century Company.)

STUDENTS' NARRATIVES

THE MAN WHO WAITED

"You've got to come into this, Jerry, you've got to. Just think of the rest of the troop; they'd give anythin' for the chance, half of 'em. Why, Tony Le Roy come to me with tears in his eyes an' he says: 'Don't let him come back, Jim, for God's sake; you know we're all with you.' An' he—"

"Come, men, step lively there."

At the sharp word of the Lieutenant three of the little group moved away and busied themselves sullenly with saddles and blankets. Old Donahue went on earnestly:

"There, you see how it goes. He treats us like dogs still, and yet he's afraid of it, damnably afraid of it. I saw him when the Colonel gave him the detail, an' he was as white as a ghost. He's a mean, dirty slob an'—"

The man at his elbow broke in quickly.

"Oh, Jerry'll come with us all right. He ain't afraid to help do the troop's work for 'em."

The youngest of the three looked up from his dust-covered boot. He was a tall, raw-boned youth, clearly not long from the "awkward squad."

"Yes, I'll come with you," he said slowly.

"Good!" said old Donahue, gripping his hand. "And don't wait."

The gray after-glow of an Arizona sunset hardly outlined the peaks that jutted above the horizon across from the little arroyo where the detail had slept through the torrid day. There were twenty of them besides the Lieutenant, all picked veterans except the recruit, who had been sent along in accordance with a pet theory of the colonel's as to the proper education of a raw cavalryman. Silently they mounted and rode off down the arroyo in single file; the Lieutenant at the head, next to him the recruit.

The boy rode with a set face, for he knew that out there in the tumble of brown foot-hills he should meet an awful moment of his life—perhaps the last. He had been wildly delighted when he had learned that he was to go with the detail and get his first taste of fighting; he wanted to feel that he had earned a place among these brown-faced men who had told him how they had felt under fire for the first time; he wanted to know how a bullet would sound going by his hat. Then, since they had been riding three days now, he had wondered how he should feel, and he was not proud of his thoughts; but he had prayed that the time might come quickly so that he might show how steadily he could bear himself in spite of thoughts or feelings.

But now—*now* he had a thing to do that was much more than not running away when the others were watching him. “Don’t wait,” old Donahue had told him a thousand times. “Don’t wait,” that was a soldier’s first duty, promptness. And now if the chance should come to him first, he must shoot, quick and straight; he had just given his word for that, and he must not miss. If the chance should come to him first—if only it would *not*! To shoot a man in the back, when he was not looking, and a white man in brown khaki—. Yet the whole troop was behind him in it; he knew that well. And the man deserved it richly. He remembered the curses of the troop that he had heard ever since the day he himself had first come to the fort, and the hard words and petty annoyances that had called them forth. As Donahue had said: “If he was a bit of a boy from the Hudson with Geometry an’ Fortifications crowdin’ out his decency, we’d pound that out of him with the help of God and the Colonel. As it is, it’s one fool too many in the Army.”

They had broken it to the boy very suddenly, only today; and he was almost dazed at the thought. He had heard tales of such things whispered in the dark barrack-room long after “lights out,” and had never dreamed of giving them more serious credence than the other gruesome yarns that were spun at enormous length to harrow the nerves of young recruits. But he had given his word,

he had given his word; the stern Scottish conscience that he thought he had left away in Michigan kept scourging him back to the grim reality. It *was* a dirty business to shoot a man so—still, if the man deserved it? Besides, probably it would be one of the others who would really do it, after all; there were six of them to whom the lot might come. No, there was no relief then; he had given his word, he had given his word; and the deed would be his unalterably, whoever might pull the trigger.

They had crossed the open valley and the glow had quite faded from the sky. Before him he could see the figure of the Lieutenant, dim in the starlight, swaying with the motion of his horse. They entered another arroyo, the shortest path across this chain of hills; and as the Lieutenant rose on a sharp pitch of the ground, his body showed dark against the paler darkness of the sky. The boy looked up at him and wondered whereabouts in that broad back he ought to aim to give the man as little pain as possible. It *was* a nasty business. But he had given his word. And, after all, would not the result be better for everybody? And how could he get out of it if he wanted to? He could not stop and demand his promise back from Donahue, for the old trooper rode last in the line, and the Lieutenant was very strict about talking during a march. He could—

Beyond the Lieutenant, up at the head of the arroyo, a dozen splashes of fire flared at once, and the air was full of the sibilant whine the other men had told him of. Almost before the boy heard the crackle of the reports, the Lieutenant had swung from his saddle and lay prone on the earth. There had been no order to dismount, and Jerry turned to look at the rest of the file. Every man was flat on his stomach; the second horse behind him was down and fighting, with a gurgle at its throat.

“Down! Get down, man!” fifteen voices called. As he turned again, not yet understanding what had happened, something struck his hat and a section of the brim fell across his eyes. The Lieutenant sprang to his feet with an oath, took the boy by both shoulders and pulled him headlong from his horse. His legs and feet struck

heavily; as he gathered himself it suddenly dawned on him that this man had exposed himself to the Indians' fire only to get *him* into comparative shelter. As the Lieutenant crouched again, something struck him in the chest; Jerry heard the thud and the puff of the breath it knocked out of him. The body fell forward and lay across his face. Something warm and wet trickled into his eyes, and he went sick and giddy as he knew what it was. Reckless of the enemy, he tipped the corpse aside and reeled to his feet with its revolver.

"Who shot him? Who shot him? Who shot him?" he screamed to the prone figures around. "Who shot him? I'll send him to hell. I'll—"

Then he fell in a crumpled heap across the body of the Lieutenant, with a bullet through his brain, for the Apaches were picking off every man who moved in the arroyo.

A NIGHT OF TEMPEST

My uncle Charley told me this while we were overhauling barrels in the doorway of his big stone apple-barn on Isle La Motte in Champlain, one windy afternoon in late August. The barn stands on a long hill that slopes up from the shore all smooth and covered with dark green orchards, and from our work we could look out over the blowing apple trees on to the West Passage, and see the whitecaps come and go on the rough blue water all the way across to the New York shore.

My Uncle Charley is a tall, lean old Scotchman with a bushy white beard, steady gray eyes and a face all furrowed under the tan with wrinkles that make you wonder if the man behind them is a hard or a kindly one. You would still be wondering after you had talked with him. His speech is full of a strange, Calvinistic piety that strikes you oddly enough at first, but which even I, a heedless lad finishing out the tag-end of a college vacation at the house of my unfamiliar kinsman, had come by the

end of my first week's stay to respect as profoundly sincere. Beyond that I was quite at sea as to my uncle's character. Shrewd I knew he was, an able farmer, sternly upright and expecting uprightness in others. He was unmarried and lived with one old housekeeper more ancient than himself in the old farm house where my mother had been born. It might have been a more kindly feeling than his clannish Scotch sense of blood-nearness that prompted him to have me with him for this visit when he found out that I had no home but a great Eastern University but, if it was he had never shown it by word or sign. The coldness of his greeting had chilled me at the first, but now I was beginning to see how great was the caution with which he habitually spoke and moved, and to wonder if, deep within the man, there was not a great hidden tenderness.

So on this roaring August afternoon I tried in a crude and boyish way to make him talk. I had found that my uncle was the best company that was to be had in those parts, and moreover he had been pleased with my offer to help him; so there we were, bringing the barrels from the big stacks in the barn and turning them about, feeling circumspectly inside for any nails that might damage the fruit with which they were to be packed, and all the while we kept up a desultory talk about a great many things. He had been a sharpshooter in the Union army throughout the war, and I tried to lure him into telling me about some of his adventures, but got no more out of him than that his deadliest work had been done before Vicksburg, and a long disquisition upon God's wrath at the crimes of slavery. The old man's terrible religion, which colored all his speech, had made me ill at ease at first after the reckless college talk, where there is little enough heed of such things, but now I was used to the ways of the man it bothered me little.

A low-lying tug out in the channel, with the smoke from her high stack blowing down ahead of her in a straight gray line and a quarter-mile string of lumber-barges high out of water splashing along astern, all bound down the lake for Canada, suggested the question of

smuggling. But the trouble about that goes on down at the Canada line, twenty miles to the north, and before the new railroad, twenty miles in the Islands was a very long way for news to come. A long flat scow with a yellow sail on a mast stepped midships on the leeward gunwale put out suddenly from the near shore half a mile up the lake from us with a horse and buggy on board. I recognized the preposterous craft as the ferry-boat that carried the traffic between the Island and the New York side across the four miles of open water between. The wind was coming straight down the lake, and she was pointing into it and edging her way across almost crab-fashion.

"She'll never make her landing over there in this breeze, will she?" I observed.

There was reason in the remark, for the ridiculous waddle with which she crunched over the waves would hardly inspire confidence in her ability at windward work.

"She'll do it," my uncle said, "I've taken the boat that ran here before that one across in five times this wind." He paused and then added slowly, "It was the night."

There was the promise of a story here, but it would not do to hurry him.

"I hope you didn't do that often," I said after a pause. "It must be running six feet high out there now, and the breeze only came up this noon."

"I said it was five times this wind, and it was all of that. Black as the night that hath no end, and I saw the justice of God riding on the wings of the storm. I saw men killed that night."

"When was it?"

"Years and years ago, before the war and before your mother was born." He stopped again, and I heard him mutter as if to himself: "And woe to that man by whom the offence cometh. God is not mocked." I did not reply, for indeed I was already picking up something of his own reserve. He took another barrel and had hammered flat the two nails he found in it before he went on. "I might tell you about the way of the Maker that night

with some of his evil creatures: it would red you out of some of your wild boys' ways to see what I saw then. I was only a lad myself, a bit of a lad not so old as you."

I did not speak, and I do think he liked me the better for it; that was the way of our clan. Then he went on to tell me this story, slowly at first and with pauses for the work, but soon we both forgot about that.

"It was in fifty-nine," he began, "in November when I had just turned sixteen. One night when we had just got in after chores and were sitting in the kitchen before bedtime, old Steve Miller's little girl came running in all out of breath and said her father was sick in bed and wanted me to come down right away. Your grandfather offered to go after the doctor, but she said no, the doctor had been there, but her father said for me to come down for he wanted to see me most special. So I put on my hat and went along with her, wondering all the time what he could be wanting with me that late in the night. The open water around us makes frosts begin late on the Islands; that is what made them such a great orcharding country later on, but we generally get a hard freeze before Thanksgiving time, and there had just been one then. It was getting warmer again; there was some wind coming in puffs from the south and the sky was all low clouds, but it was light enough to see the fringe of ice along the lake shore and the little waves breaking along its outer edge.

"I wondered a good deal what the old man would be wanting me for. Your grandfather had queer notions for a farmer and one of them was that a growing boy ought not to be set at the hard work, so between chore times I had gone down and helped Steve with the boat and sometimes had taken her across by myself when the passenger would lend a hand with the ropes, and so I had got to sail her almost as well as the old man. I thought maybe somebody might be wanting to go across tonight and he down sick, but the little girl said that nobody had been to the house all day but the doctor, and he had driven back into Alburg by the other ferry.

"When the little girl and I got down to the house we

found the old man doubled up in bed with rheumatism. He sent her out of the room and then made me come right up close to him. The hand of the Lord was heavy upon him, for he was all twisted and kept his mouth tight shut with the pain of it so that he spoke quick and sharp and I had to stoop over him to hear what he was saying.

“ ‘Laddie,’ he said—he always called me ‘laddie,’ but now his Scotch was dreadful thick and choked-like— ‘Laddie,’ are ye a brave mon? ”

“ ‘I hope to be,’ I said, and wondered what was coming next. He hitched himself up on one elbow a bit and spoke lower and closer to my ear.

“ ‘An’ ye know how down South they’re slavin’ an’ beatin’ an’ killin’ the black folks as are made in God’s image? ’

“ ‘I said ‘Yes,’ and stared at him, for I thought the old man was going a mite queer. He took it well enough, though, and said:

“ ‘Eh, laddie, I know your heart is in the right place.’ And then he went on to tell why he wanted me.

“ ‘You will have heard of the way God-fearing folks all over the North before the war had of helping the black people who had been delivered over unto the Accursed, when they were trying to escape out of the hands of their oppressor. They would hide them in their houses through the day and then in the night carry them along to the house of some other good man, and they would call it the ‘underground railway.’ I had heard all about this, for they would take one of the slaves sometimes and then the papers that we got from Burlington once in the week would be all full with a great talk about the wickedness of the trade in men with immortal souls, but all that I had ever heard of had been over in Ohio and Pennsylvania and I never thought of it coming near by us. But it seems that lately they had made a way of coming through the mountains in east Pennsylvania, then across the flat farm land in middle New York, right under the eyes of the men they kept watching in the cities, and so to the tail of Lake George. From there they would come down the two lakes and land somewhere above Plattsburg and then

up through the mountains over in York State right across from us here into Canada so as to miss the watch they kept on the lake near the line. I knew afterwards that only a few slaves were ever passed through by that way.

“Now the old man told me that there was a black boy at a farm-house beyond Plattsburg whom they had brought so far but didn’t dare take through on the York side because they had got word that the road was being watched. They had sure word that he who called himself the lad’s master was following him and had got as far as the lake in his chase. They had to get him over the line at once and so they got Steve to agree to be at the York landing at eleven this night with the boat to set them over to the Island; they had seen to the other ferry, and were going to drive across the Island and on through Alburg into Canada. And now here was Steve down in bed and that black boy looking to him for his freedom, and would I take the boat over and keep his promise?

“ ‘You’ll have a rough night of it,’ he said, and indeed you could hear the wind already whistling about the eaves and shaking the house, but I was keen to start at once though it was hardly nine yet. They might have to start sooner than they thought, you see, with the master right in the near.

“So I left the old man and hurried down to the landing where the boat was, and the little girl held the door open to light me, for I was afraid to show a lantern; at that time of night anybody would have known that something was up. The wind had been rising fast, and when I got down by the landing out of the shine from the door I could hear the waves washing loud on the fringe of ice, though I could hardly see them, near as they were, for the dark that had shut down with the heavy clouds. The wind made a solemn sound, not whistling the way it does around a house and sometimes in the trees, but it went through the birches there by the landing with a rushing noise that hardly changed, and the trees bent all straight to the north and twisted and waved but never straightened up at all. I noticed that, for it was different from the

gusty storms we get from the northwest. But I was keen to be off and didn't stop to watch the trees long.

"The boat hadn't been out since the night before so I had to break the thin ice around her with the big steering-sweep before I cast off. She was pretty much like this boat that runs now, with the mast rigged at one side and built to sail either end foremost. There was a line of reef-points across the middle of the sail and I tied them down before I hoisted it and then cast off. The sail flapped over with a bang and she heeled away over and went smashing out through the ice into the clear water. Out there I had my hands full. On the shore I hadn't known it was such an awful storm. The waves hadn't got up big, but they were sharp and choppy and the wind drove her over until the water would come slopping in now and then when a big one struck her to windward. I had to point her away up like they did today. Man, but that was a storm! If it had come in gusts it would have knocked the sail into bits in two minutes. As it was I had to ease her up almost into it time and again, and the wind took the tops right off the waves that pounded her to windward and flung the water in sheets full aboard. Before I had gone far I could see that the waves were getting higher and by and by she would take the solid water over the gunwale. A dozen times the big steering-oar near jerked me overboard. It was twenty feet long and so heavy that I could hardly lift it into place, so that was no wonder. I lost sight in no time of everything but the whitecaps and the lighter places in the clouds and there was nothing to steer by, so I had to point her as high into it as I could and chance it.

"All of a sudden I saw the waves breaking on the shore just ahead, and before I could swing her clear into the wind she had wallowed across some smoother water and smashed against a pebble beach. It knocked me clean off my feet and into the bottom of the boat when she struck, but she was planked with two inches of oak and it didn't break her. I got the sail down and a rope around a tree without any more damage and then took a look

around. I found that she had come ashore not more than ten rods from her regular landing, and the little point of land just up the lake broke the sea so that she had been saved from going to pieces, and she had come straight to her regular landing-place. They hadn't brought the black man there yet, and though I listened hard for them I couldn't hear the wheels coming; you would hardly expect to hear them until they were close by on a night like that. I got her close up on the beach where she would pound as little as might be and began to watch for the men.

"I had no notion how long I had been crossing; it seemed a good many hours, and I was worrying to myself for fear that they had been there and I failing them, and that the black man had been taken. It was a solemn thought to think that a fellow creature's freedom might have been lost for my failure, though I knew that the boat could not have come across any sooner and it was not in the right my fault. I thought about my father and mother at home and how maybe they were worrying that I did not come back; they would likely suppose that I was on the lake, though they would not know my errand. I wondered too about the black man. Though I had read of them in the papers and had heard folks talk of them, I had never seen one, and, boy fashion, I was as much anxious to know what sort of a person the lad might be as worrying how I should ever get out of such a dreadful storm alive.

"All of sudden I thought I heard the sound of a gun away down the lake through the great noise of the storm, and I ran up on the low knoll behind the landing and looked about. There was nothing to see but the water breaking in great white sheets on the point and the sweet-fern bushes about me all blown flat with the wind that almost took me off my feet. It had begun to rain, but I was soaked with the spray I got in the coming over so I didn't mind that. But now I began to see what a wind it was. It hadn't risen to speak of since I had crossed, but the waves were twice as high; I have never seen them any higher in sixty years, and where I could see them go

running by the end of the point they were all white foam at the top and went curling over like breakers. But though I waited and listened maybe a quarter of an hour I saw nor heard nothing of the men with the black man.

“Then I went back to the boat and watched the sea growing and growing and heard the boat pound on the stones of the beach, and that sheltered by the point, until it seemed as if she would break open. How I should ever take her out on to that water I could not see; it looked to be sure death, and then I fell to wondering how I had ever come through it getting across, and most of all how I had come straight to the only place on that shore where I might save the black man, and I not knowing in the least where I was steering. And yet of course I did know, and boy as I was I could see plain that it was the God that holds the great sea and the lakes, too, in the hollow of his hand. It was nothing but the Lord Almighty that could save a man that would be seeming to tempt his wrath on that water, and He had shown that His mighty arm was stretched out over me for the saving of that runaway black, and so I knew that if we had to put out again He would show forth His might yet again. But it was a fearful storm, and while I knelt there and prayed that we might all be saved from the danger of the water, I asked, too, that we might not have to set forth on it again.

“The night went on and the black man did not come. Twice I went up on the knoll and looked and listened, but I saw nothing more than I had before. Then I sat by the boat and watched the white waves go past out beyond the point—for it was getting a bit lighter, whether from the clouds getting thin or from the day I did not know—and as I looked and saw the great might and power of the Maker, and heard the wind as you might say shouting for gladness at its strength, I fell to thinking, all solemnly and not at all afraid, but as if the storm and the moving waters were only like me, for indeed we were both in the hands of the Everlasting. And for all it seems to be a waste that men and ships should sink as they do in the storms, yet I thought that as the Creator hath made everything for some purpose it must be that they are only the

mighty ways that He hath of doing His work. And then as I saw more and more the strength of the storm, I thought that if I was like them, though a mere mortal man, I too was an instrument of God's hand, and in the long hours that I waited I purposed that if ever the time came I would be, like them, strong, and if there was need, fearful and cruel.

"The night went by and it began to come daylight a little, and still they had not come. I was cold and wet, but the great thoughts kept me from feeling it, and as I sat there I even hoped that they would come and that I might go out on the lake and try the mercy of the Lord. All at once I heard a horse's feet and wheels, and a buggy with two men in it drove over the knoll at a run and came stumbling down to the landing. The man who was driving was a heavy man, a farmer, and the other was a boy about my age but slimmer and better dressed than most folks I had seen. I wondered where the black man was and hurried to ask them. The driver took one look at the lake and then said, all excited:

" 'Is there a road along the shore here?' I said 'No,' and then blurted out without thinking that it might be somebody else:

" 'Where is the black man?' He looked at me quick and said:

" 'He's here. So Steve sent you over. They're only half a mile behind us; they'll be at the turn by now. How can we get out of this?'

"I was glad at that, for I saw that God would show forth his might, and I told him there was no way but by the lake. I could hardly believe that that was the black man, for the lad was as white as myself.

"The man stared at what I said.

" 'Boy,' he said, 'are ye crazy? No boat that's on the lake could float a minute out there. Quick, can we drive through the fields back to the road?' and he tightened the reins as if he was going on.

"I stopped him, for it was all sweet-fern bushes and plowed fields there, and just then we heard the noise of hoofs and wheels on the road. There was no time to

stop then, and I ran to the boat and pulled up the sail. The boy followed and I cut the rope and pried her off from the beach with the sweep. The other man tried to stop us, and indeed it must have looked to him like taking our own lives, but we were off and pitching across the quiet water before he could think of anything to say. I brought the sail across the boat, for there was nothing to do but run from that wind, and I hadn't got the sheet trimmed before the boy gave a cry, and a gun went off on shore and a bullet went by my head. We could hardly see ashore, for the light was still bad, but in the glimpse I had time for I saw that there was another buggy on the crest of the knoll and a man standing in it with a big pistol, and he wore a wide felt hat. We lost them in no time in the dark and the rain and then I could think of nothing but the steering.

"You would think that after the awful time I had had coming across at the first there would be no chance of the boat going through this sea that was three times as big. But it had grown so that now she would go clear up on each wave and then down into the hollow instead of rocking about on two at once and shipping their spray. But every time she came down she would plunge her bow under and take in water, and at the crests it would come over her sides. The wind was falling or she would have been buried in the foam and spray, but she went on, taking in water with every wave and sometimes getting as much as half a barrel-full at once. I set the boy to bailing with a tin basin there was aboard, but the water kept gaining on him and I saw that we could never keep afloat to cross the Canada line. It was foolish to think of making the Island, for we must have run half-way by already and if we missed it we would be sure to run into the reefs off the north end. So I kept her as close to the York shore as I dared so that if the worst should happen we might by God's great help get safe to land. But all the while, though I made these plans, I was really thinking of the might of the Maker of it all and not the least frightened, but glad of His strength.

“We had run perhaps half an hour, and there was six or seven inches of water washing about in the bottom of the boat and she was beginning to ride heavier for it. It had been getting lighter so that I could see the York shore but not plain enough to make out where we were. The Island was all hidden with the dark and rain. All at once there was a bend in the land and I knew that we had got to the point that runs out in the lake over there to the north just this side of the line. I had a hard time getting her swung away on the new course; I was afraid at first that I should have to bring her about, and had just got the sheet where I wanted it—the wind was going down fast now, and made that easier—when I looked astern. The lake was all high waves with hollows between them so deep that when the boat went down into one I couldn’t see near out of it. Just then we were going over a crest, and as I looked back I saw a boat right behind us and not more than thirty rods away. It was only a bit of a skiff that you wouldn’t think would ride a minute in such a sea; when I got the glimpse of her she was half out of water as she came over the top of a wave. She had a little three-cornered sail and there was a tall man standing in the stern and he had a wide felt hat that the wind bent about his head. Then we went down in the hollow and when we came up on the next wave I could only make out the tip of her sail. We were taking in more water on the new course, and when I looked back the next time she was going down a wave not half as far as before.

“At the bottom of the next wave the water came aboard in a solid sheet half-way to my knees as I stood up on her stern. It was a foot deep in her now, and three more like that would fill her. I eased away to run her ashore on the Point; it would be a better chance with the breakers than drowning in the open lake. Just as I was telling the boy to ease off on the sheet he gave a cry and stared astern. There was a skiff coming down the wave behind us as we swung up to the crest of the one we were on. We went down with a plunge, and as we reached the bottom she came over the top and down after us. Her bow drove under the overhang of our stern and

we came down and crushed her. The man came forward over the seats in her as she went down and aboard us with one jump. I never saw a mortal man so angry. His eyes were all red and there was a snarl about his mouth like a dog's. He pulled himself to his feet and went straight at the boy. The lad saw the man's face and he drew himself up before the mast, for he had nothing to defend himself with and he saw that his time had come. The man took one step and had him by the throat with one hand holding him against the mast. For a second he held him there, then put up a pistol that he held in his other hand, and pointed it at the lad's head, and shot him. The body fell into the bottom of the boat, and as the head struck against the mast I saw his brains splash out of the great red hole like milk out of a pitcher. I was only a lad and I had never seen a man die and I went all sick and the oar jerked out of my hands.

"But God used even my womanishness for His own good will. As I lost the oar, I lost my footing, and fell down into the water in the bottom by the body. The boat came about in a flash and the big boom swung across as she came over and struck the man square in the chest. I heard the ribs crack, and saw his body flatten out with the blow, and then he went backwards overboard and sank like a stone in the lake, and his wide hat was floating on the water until the sail covered it as the boat went over.

"When she capsized it threw me into the water; but I hung to the rigging, and when I found I was like to faint with the long watching and the work, I tied myself to the mast, and there they found me when the scow came ashore on the point two hours later. But from that day I was a different man. I had seen the awful wickedness of man and the weakness of human justice—for the law would not have punished the man for the murder he did that night—and the sight had sobered me. And then too I had seen the might of God's justice, and I had felt the strength of the storm. From that day I knew that God's curse was on the slave-owners, and when the call came for fighting men I went with the first. I had some skill with

the rifle and they made me a sharpshooter. I struck them down as God would have them. Twelve I killed in one day at Antietam, and forty-seven in the trenches of Vicksburg. All told they were two hundred and thirty-six. And woe to that man by whom the offence cometh. God is not mocked."

APPENDIX

FAULTY COMPOSITIONS

DEFÖE'S DICTION IN "ROBINSON CRUSÖE"

Inasmuch as Daniel DeFoe was the first exponent of that style of writing known as the novel, it is not surprising that he overstepped the limits, as regards the subject-matter and the use of words and phrases, which are now prescribed by the best authorities. There are instances, pretty frequent ones at that, in which ~~DeFoe makes~~ Crusoe soliloquize on various aspects of religion, thus breaking up the continuity of the story to a very considerable degree. Of course, these passages tend to picture DeFoe himself as a very conscientious man, but it does not seem proper to me to put them in a book like "Robinson Crusoe." The movement of the tale is rapid, although the numerous descriptions, however well-done, interrupt its thread. DeFoe's use of words, now obsolete or used in an entirely different sense, is very marked: e. g., "eat" for "ate." His idioms and phrases, many of them, are not in good use now, although they were undoubtedly in his time. His manner of expression is vivid, though simple, and although he takes a great number of words to express a simple idea. The passages referring to Crusoe's doubts as to the advisability of interfering with the cannibal's feasts show a certain reflective attitude in DeFoe's mind, as well as his strong belief in God. However, in spite of these obvious defects, I think DeFoe acquitted himself very well for a first attempt at a style of writing hitherto unattempted.

CONCLUSION OF A THEME ON THE GEOGRAPHICAL DISCOVERIES OF THE FIFTEENTH CENTURY

Columbus was one of these navigators with the belief that he could reach India by sailing directly westward—for he believed that the earth was round. He set out from Spain in the year 1492 and discovered later in the same year, one of a group of islands which are called the Bahama Islands. But he thought that he had discovered an island lying just off the coast of Asia. And he died believing to the last that he had found a westward passage to India. What he had discovered was America, the land which was to play so important a part in the world's history.

Europe was astounded by the great discoveries. And the reports which were brought back from the new lands resulted in a changing of the great commercial centres from the Mediterranean ports to ports on the Atlantic Ocean. Colonies were planted in the new world which had to be protected from the other countries. So at home new offices were added to the government which now became more intricate than it had ever been before.

OCEAN WAVES

If one has never seen the waves along the shore after a big storm, he has missed a fine spectacle. Some of the prettiest sights I have ever viewed were big ocean waves pounding on the beach near my home. The sandy shores of the ocean are generally not as slanting as the inland bodies of water. This is accounted for in the fact that the larger waves break farther from the shore, and the rush of the water which follows gains a momentum whose force is nearly horizontal. It is said that if the wind should cease to blow in every part of the ocean for three days, there would be no waves. I have never heard that this has ever occurred.

Ocean waves are extremely dangerous to bathe in on account of the "undertow"; a term given to the current of water from a receding wave, which runs back under the next wave.

THE EDUCATIONAL VALUE OF THE PLAY

The wandering montebanks easily gather a crowd of people about them by exhibiting a few tricks, or showing some monstrosity of nature, because people's curiosity is easily aroused, and they are attracted by anything which they can see. The early monks understood this element in human nature, and sought to teach the people about the Bible by performing miracle plays on large wooden platforms which were moved about in the streets. Thus the first attempts were made to educate people through the medium of the play.

Long strides have been made from the time when a sign was hung by the side of the stage, to indicate to the people whether they were looking at the forest of Arden, or at a street scene in Venice, to the present time, when every play has its complement of scenery. When the curtain goes up, each new scene has a surprise; it may be a quaint German street with high, gable-roofed houses, and brightly dressed peasants, or the kitchen of a New England farmer's home, with the mother darning stockings, while a kitten plays with the ball of yarn under the table. The costumes have an element of surprise, and lend an added interest to the scene which is revealed. They may be either the slashed velvets of the seventeenth century, or the brown homespun suits of the Continental army. Certainly every one who saw the "Street Scene in Madrid," in "A Royal Army" with Marita in her Gypsy costume, singing to the music of her tambourine, while the gayly dressed people stood about the picturesque street, would have a better idea of the life of the Spaniards, and their customs. A good idea of the magnificence of the dress worn at the time of Louis XVI., by the

nobility in both France and England, is gotten from the beautiful costumes in "Beaucaire." The impression made by a play is strengthened by the personality of the actor, whose interpretation of the role which he is playing, may make a character full of interest, and reveal hidden meanings in the character, which is seen through his temperament.

A person's knowledge is extended, and his ideas broadened by play going. The spectator unconsciously gets away from himself, and the little world which surrounds him, while his thoughts are carried across the sea to other countries, and customs, or to the lives of other people. Almost all sides of human life are depicted upon the stage. The historical periods have been well represented especially the time of the Revolutionary war here in America. So common have these been that every play-goer is familiar with the sight of the Continental soldiers, in their blue, and buff uniforms, and of the life in the South on the plantations before the "War."

The play takes an important place in our modern life, and it behooves every one to know something about it. Some people who attend the theatre regularly, although they have not read widely, are intelligent about many of the works of great authors, are conversant with the great historical periods, have a good idea of the life led in different countries, and a knowledge of the leading actors before the public.

No one can attend a good play without becoming more intelligent, having the mind stimulated, the imagination quickened and the mental horizon enlarged.

CARDING MACHINERY—ITS STRUCTURE AND USE

The first operation in the manufacture of cotton cloth is putting the raw cotton into the picker machine; here it is torn apart and conveyed to the spreading machine, where it is spread into a "coil of lap" and is then ready for the carding machine. But before describing the man-

ner in which the cotton is treated here, let me describe the building of these machines.

There are many different machines, and each year finds many new improvements of those of the former year, yet they are all of nearly the same kind considering it from a material point of view. These machines are about ten feet and a half long, but only three and a half feet wide. Large iron cylinders ten feet and a half in circumference take up the greater part of the machine. These large cylinders which I have last mentioned are nearly three and a half feet in length, and in some machines are replaced by a great number of smaller ones. These frames as well as the large cylinders are of cast iron, but the smaller ones are generally of wood. The large cylinders have steel chains fastened on gearing and sprocketed wheels at both ends of it; to this chain are attached what are called top flats,—long triangular pieces of iron covered on one side with card clothing. Doffers, which are now generally constructed of cast iron, are not as preferable as those which are made of zinc, since the card clothing can be tacked on instead of being put on with glue. The most important is putting the sheet cards on the main cylinder, since care must be taken to fasten them on as tight as they will bear without tearing the leather. Calfskin is used in some cases and still greater care must be used for if it is not put on very tight, it is apt to stretch and become slack in grinding.

The card clothing which is used in covering cards is filled with wire staples or teeth of the best quality (generally). A roller about six inches in diameter and about three feet and a half long is covered with card clothing having teeth nearly four times as long as that on the flats or cylinder and is called a stripper. The teeth of this small cylinder stand contrary to those on the main cylinder and run opposite. The teeth of the top flats and cards stand in a different direction to those on the main cylinder.

One very important operation in the structure of the cards is the grinding of these teeth; emery rollers which are used for this purpose are about seven or eight inches

in diameter and always two or three inches wider than the card cylinders, so that they may traverse an inch each way on the cylinder and grind each flat evenly; this traversing is produced by a crooked iron strap, which fitting between the rims of the pulley will move the emery roller longitudinally and around at the same time and the time required to grind a set of cards is about a day. If the parts of the clothing of the cylinders, flats or fillets are not even and level, the fillet is easily broken and then drops into the card, when carding the cotton and revolving at the rate of about one hundred and forty revolutions a minute, and causes great disaster; it has rightly been said that the breaking of these fillets is one of the miseries of cotton manufacture since about forty or fifty dollars worth of damage is caused by each fillet which falls. After the cotton has left the spreading machine it is carried along to the carding machine in a "coil of lap" and here it is, as we may call it, shredded, that is the fibres of the cotton are disentangled and are laid lengthwise, parallel to each other.

Carding consists mostly in the reversed action of two opposite surfaces which are studded with wire hooks. When many small cylinders in these machines are used it is for coarse yarn and cotton, but when one or two small cylinders are used it is for fine yarn and cotton. Carding then is one of the most important operations in the manufacture of cloth, since it regulates the size and strength of the threads of which cloth is made.

WHY I AM A BAPTIST

While I am giving my reasons for being a Baptist, I wish it to be distinctly understood that I speak for myself only; for the Baptists are an independent class, each having his own opinions and his own reasons for them. Although my opinions are entirely my own, yet I shall give as reasons for them what the Baptists as a class believe.

Baptists generally agree with the other evangelical

bodies of Christians in their belief as to the Being and Attributes of God, the Inspiration of the Scriptures, the Divinity and Atonement of Christ, the Necessity of Regeneration and the power and work of the Holy Spirit. The principal distinction between their beliefs and those of other denominations is found in their views of the absolute authority of God's word, and of the Church; its membership, and its ordinances. Whatever is taught in the New Testament this denomination accepts without question. On the other hand they reject all laws which spring from tradition or ecclesiastical authority. Many local churches have what they term Articles of Faith, and many have nothing of the kind. As a denomination, Baptists, however, have never put forth an authorized expression of their principles and practices in the form of a creed. The New Testament is their creed, and they have nothing else to give form or limits to their beliefs.

The Baptists also believe that the New Testament Churches were companies of baptized believers in Christ, with pastors, or bishops, and deacons as their only officers. These were covenanted together for worship and religious work, supreme in the government of their own affairs, and independent of all outside control; and so the Baptist minister of today is neither a priest nor a ruler. He is simply a shepherd and teacher. All members of his church are equals, and the whole body is self-governed. Then, too, the Baptists protest that the State has nothing to do with the control of religion; and, therefore they have always opposed the union of Church and State.

All Baptists believe that the true Christian baptism is the immersion of a believer in Christ in water in the name of the Father, Son, and Holy Ghost. The records of baptisms in the New Testament, and the allusions to it as a burial, leave no room for doubt as to what the primitive mode of baptism was. Then if one looks up the meaning of the word "Baptist" in any Greek lexicon, he will find that it means "to immerse." The Christian scholarship of all the world upholds the belief that immersion was the only baptism practised during the first thirteen centuries. In connection with baptism comes the question of infant

christening. The Baptists can find no reason for believing in this act which other churches believe in, because the New Testament gives no proof that it was ever done in Christ's time.

One of the strongest points of the Baptist faith is the close communion service. For they believe that the Lord's Supper is an ordinance of the Church, in which, by the bread and wine, Christ's disciples commemorate his sufferings and death in obedience to his command: "This do in remembrance of me." The Baptists have ever protested most firmly against the doctrine that either baptism or the Lord's Supper is in any way a means of salvation. They have always declared that only those who have already become Christians are proper persons for baptism and the Lord's Supper.

The motto of the Baptists is loyalty to the word of God. Because I believe as they do in the authority of God's word, his Church, its Members, and its Ordinances, I am a Baptist.

THE EFFECT OF THE NEWSPAPER ON OUR READING

In these days of advanced learning and endless rushing, one does not always spend much time reading the good authors and the classical literature for, as anybody would answer, "there is no time." The newspaper and the historical novel have found their way into everyone's house and the good old authors have been obliged to wait their turn.

The life of the present day is a great contrast to that of the time of Dickens or Shakespeare, for now one rushes from sunrise until midnight. Glancing at the newspaper is a very convenient way of finding out what is going on in the world, and, in order to appear well educated, one is obliged to know the present events pretty well. The newspaper not only contains an account of what is going on in the different countries but it also takes up, usually in a sensational way, all the crimes and fires in the neighbor-

hood. The English in the reporter's accounts in an ordinary journal is very careless and slovenly as well as being vulgar. A reporter in his haste often coins new words or uses old words in a new way, with the result that a constant reader of the paper almost invariably spoils his vocabulary. Why should this careless and vulgar English be allowed to take the place of all the good old writers who spent so much time and pains with their work?

It has often been argued that the constant reading of a newspaper causes hasty reading on the part of the peruser. If it will cause only the hasty reading of the newspaper, it is all right, but when it begins to cause hasty reading of good books, something ought to be done. Each article in a journal is preceded by headlines which act as an outline of the article itself, so that by glancing over the headlines one has the thought of the article. For newspaper reading this is a very good plan, but when one applies the same method to the works of Dickens, it is not so good. We are too apt to come down to breakfast, snatch up the paper, glance through the headlines, rush off to work, and, on coming home in the evening, snatch up some new historical novel that every one is talking about, glance it through, and then rush off to a dance or some other entertainment. Of course that causes very hasty reading; but is it the fault of the newspaper? I think it is the fault of the times, for every one is living on their nerves with no time for a quiet association with good literature but always time to read modern trash.

The editorial page of the high class paper is usually good, and, as it stands to reason that a well educated man should keep in touch with the times, there is no harm to be found in reading the editor's comments. The editor of a good journal is always careful to use the best English and to deal only with the most important subjects of the day. Although the editor of a modern newspaper is not a Dickens or a Macaulay, still he is well educated and it is worth while for any one who wishes to keep up with the times to read his writings.

There are a great many classes of newspapers, beginning

with the "Yellow Journal" and going up to the very best. It is hardly necessary to say that in this age of, one could almost say low morals and could certainly say carelessness, in this age of carelessness the best is none too good. The "Yellow Journal" deals with everything in a most sensational way, sells for one cent and therefore boasts of a very large circulation. The best paper deals with every thing in a fair and even manner and, let us be ashamed to say it, although costing not more than three cents, it has a much smaller circulation than its sensational cousin.

So among the better class of people the editorials of a good newspaper have no ill effects on the reader nor do they cause hasty reading, but those who read carefully the sensational paper usually spoil their vocabulary. If there is any doubt whether we are well enough educated to prefer the quiet, unobtrusive paper let us entirely avoid newspapers until we are better educated.

THE USE OF HIGH POWER RIFLES IN THE WOODS

At the close of each season set apart by law for the legal shooting of deer and the other big game of the forest, it is customary for the newspapers to present statements containing the list of casualties during the past season. A careful observer will notice that the list is growing larger, year by year. He will also note that the list swells proportionately with the more general adoption of the high power rifle. This state of affairs should be carefully investigated. It seems that something ought to be done to prevent this unnecessary yearly murder of so many persons.

As has been noted, the death list increases proportionately with the adoption of the high power rifle. This seems to point pretty clearly to the new gun as the cause of most of the mischief. If we compare the modern high power gun with the more old-fashioned rifle, we immediately see great differences. The newer gun is of very small calibre. This quality alone accounts for a "multi-

tude of sins." The explosive which is used in the modern gun, burns very rapidly. Putting these two qualities together, it is seen that the lead slug of the old guns would be partly melted while in the barrel of the piece, by the tremendous friction. This would lead to woful results. The rifling in the barrel would become clogged with lead and rendered nearly useless. To prevent this occurrence, the lead slug is furnished with a nickel "jacket." Let us discuss two of these points more in detail. Owing to the small calibre of the high power rifle, the slug possesses tremendous piercing power, enabling it to pass through a small sized tree, and still have power enough left to cause instant death to any unfortunate man or beast in its path. There is also another disadvantage in relation to the size of the bullet. If a deer is not killed instantly, it will run at full speed as far as its strength allows, or, in other words, until the loss of blood has been so great that the creature faints. A small calibre bullet makes a very small hole in the flesh, obviously letting very little blood escape. This means that, unless an animal is instantly killed, it will escape its pursuers and die a lingering death from a gangrenous wound. This should be enough to prevent a sportsman,—if he is one in the true sense of the word—from using the new rifles. But still more is to come. The impact of the small nickel-jacketed slugs is not a blow, but rather of a cutting nature. If a bone is struck, it is not shattered, as would be the case if a "mushroom" lead bullet had been used, but a small hole is drilled out by the bullet, and the bone becomes diseased. This, also, results in a death by slow torture. Another very good reason against the use of this class of firearms is that it is not needed in the woods. If a hunter were trailing the Big Horn sheep in the Rocky Mountains, he would need a rifle with an exceedingly long range, but in the woods it is impossible to see as far as this. These seem to be good reasons for the return to the old low pressure rifle.

We have seen the great disadvantages of this class of firearms, and now the question is, "What can be done to prevent the killing of men at great distance by careless hunters, and the infliction of lingering, agonizing deaths

upon the wild creatures of the forest?" There is but one thing to be done which will offer adequate protection to all concerned. A law should be passed, forbidding the use of rifles having a range over a certain specified distance. If such a law were passed and rigidly enforced, the death lists in the papers would number less victims, and our big game would be spared much needless pain.

FOREST FIRES

Eighteen years ago I first visited the Adirondacks, and with one exception have spent there some part of each year since. Ignorance and neglect have wrought sad changes since the first year I tramped over the trails of the North Woods. Hardly a year passes without a few weeks of dry weather, dry enough to prepare the ground for the engine spark or the careless camper or the malicious "out of a job" and hungering for the wages of a fire fighter on State pay.

This summer, with my wife, I drove through a whirl of fire and smoke during the month of July between Paul Smith's and Blue Mountain. Half an hour after we crossed the St. Regis River bridge it burned away and fell into the stream. The operations of one corporation notorious as a company that ruthlessly destroys in lumbering had left the usual slash of tree tops and dead brush with the inevitable consequence. Along the Spring Cove grade on the New York and Ottawa division of the New York Central hardly a day passes without a fire caused by freight or passenger trains trying to make the grade.

A letter to Governor Hughes resulted in the sending down to Blue Mountain of the chief fire warden and the local warden, together with Mr. William Rockefeller's superintendent, John Redwood. The Governor showed an active interest in the prevention of further fires, and Commissioner Whipple has labored in the face of discouraging ignorance and malicious indifference. The people who live in this region appear dazed or stupid. They permit fires

to spread which could readily be extinguished by prompt attention. When the fire becomes a disaster there is a great "how de do." Gangs with shovels and buckets descend upon the scene of danger or are "ordered" there and work to extinguish the blaze—that is, some of them work. The rest work when the boss is looking, and it is a common spectacle to find them lying on the ground watching the fire.

Why the railroads, which spend thousands of dollars to coax people up in the Adirondacks, are so indifferent to the destruction is hard to understand. Everything accomplished by the State has only been done by practically taking the railroads by the neck and forcing them into line. Of course the proposition to remove "burned or fallen timber" is viewed with suspicion. How many additional acres of burned or fallen timber would result from the enactment of such permission?

Instead of conserving the trees—millions of them, each in itself a guarantee of natural water storage; instead of conserving the flow of many streams on the watersheds far from the natural sources—the attempt was made to construct storage dams at the headwaters by raising the levels of mountain lakes, flooding valuable land, destroying millions of young trees.

Wherever the ownership of large tracts of forest land has been administered with a broad policy, and not the narrow desire to punish any one who sets foot thereon as a trespasser, the owner thereof has found coöperation, and when fires threatened this land the native was there to aid in saving property. On the other hand, those whose policy has been of exclusion have suffered a thousandfold thereby. Contrast the opposite policies of Paul Smith and William G. Rockefeller, also contrast the broad green acres of the former with the forest of the latter. It is common knowledge that when the great fires of five years ago swept this section of Franklin County Paul Smith had plenty of aid and saved his park. The gray fire line may now be seen where it was stopped on St. Regis mountain where it swept the Rockefeller park. Mr. Rockefeller advocates the use of oil on the roads running in this region, and

it can hardly be fair to accuse him of any but unselfish interest in this direction.

In a communication a few years ago he said that the use of oil would probably be objected to by the railroads, but that they might be compelled by law. He realized at the time the large responsibility they assumed in spreading fire by the throwing of sparks from the engine.

A uniformed force, telephone systems, observation stations, roads, and a law taxing counties in which fires occur, should receive support and would be the means of saving our beautiful natural parks. Otherwise, the loss to future generations and ourselves will be inestimable. We must move quickly and now.

THE DEPENDENCE OF THE COLLEGE UPON THE PREPARATORY SCHOOL

The dependence of the college upon the preparatory school is a matter of great general interest. At the recent installation of Woodrow Wilson as president of Princeton University, this well-known and brilliant authority on international law pointed out in his address "how fully the college or university (I am using these terms in the same meaning) is dependent upon the lower schools in all branches of its life. Without them it could not long survive and must slowly but surely decline and pass out of existence." In the weekly and monthly periodicals, also, articles appear from time to time by prominent educators, pointing out of how great importance the "prep" school is to the higher technical and academic institutions of learning.

First and foremost comes the dependence of the college upon the preparatory school as regards financial and intellectual maintenance of the standard and then its upbuilding. The college by its reputation along intellectual, moral, and athletic lines becomes known not only in the immediate vicinity of its location but all over the country and also in foreign lands. Here at Brown, for

example, we have men from Oklahoma and Wisconsin and even from far-off Korea. Our Alma Mater's name and fame have been spread abroad by loyal and enthusiastic alumni, whose praises have brought here many a student who would otherwise have been lost to us. To do its best work, the college must have a certain number of attendants at least, who will support it financially and intellectually with all the means at their command. To obtain this all-important support, the advantages of that particular college must be attractively set forth in the catalogue, with illustrations of the buildings and grounds and pictures of prominent professors and students if possible. By this method of advertisement, as it were, more students are induced to enter and thus further the upbuilding of the university. With a larger attendance, better instructors can be procured and better living accommodations furnished. Teachers, who thoroughly understand their work, always say that their classes do better and more far-reaching work and acquire more knowledge, if all take hold together with the belief that students and teachers are alike students, and not feel that certain ones are far above them and not to be spoken to except in the class-room. So, we see, the more the students, the better the intellectual and financial status of the university in the higher psychical world.

But, in speaking of the entrance of large numbers of new students to college, there arises the ever-discussed question of the method: by certificate, or by examination. Let us look at a few examples of both systems. At Yale, Harvard, Bowdoin, and a few others, entrance is gained by examination only; while at Brown, Amherst, Dartmouth and many more, certificates will admit prospective students. If examinations do not have the name of being comparatively easy or admission is not by certificate, all the manifold advantages so glowingly set forth in the catalogue will count for naught. There is no doubt but that most of the men who enter college by the first-mentioned method could pass examinations if required; but by dishonesty on the part of the teacher or "pull" with the head of the "prep" school some few get in every year.

who do most to retard the broadening of the range of usefulness of the college by their low scholarship and low morals and associations. If entrance were by examination only, prospective Freshmen would strive more in the lower schools to equip themselves in order to pass the examinations; in this way, a general intellectual advancement would be made on the principle of competition, and only those would be enabled to come to college who wished to see "how much college would do for them" and not how they could best get a bare pass-mark.

A great deal of the "cracking-up" of a college is done in the reports of victorious foot-ball and base-ball games. Along athletic lines, we see how important the "prep" school is to the university. At present, in every college where there is the least semblance of fairness in sports, students are limited to four years' playing. So if it were not for the lower schools, athletics, of an intercollegiate nature at least, would die out inevitably in four years at the most. From these come men who are to uphold the reputation of their chosen Alma Mater and perhaps add to her prestige, but among whom there are always a few who come to college solely for the purpose of playing foot-ball or base-ball, in whichever direction their ability lies, not to acquire academic or mechanical knowledge or advancement. But in the last few years the average of athletes who are good students has noticeably increased, and the college, which has a high reputation intellectually and for honest athletics, soon becomes recognized as a factor in the world of higher education, and fellows from all parts of the world, almost, flock to its standard. In a broad view of athletics, we see a further argument in favor of entrance by examination. If this method were more generally in vogue, the purely athletic men could be weeded out from the intellectually inclined and placed in their proper position in the social world. This method might keep a few dollars out of the treasury but it would add more to the intellectual life, value, and work of the university than could be measured in dollars and cents.

In speaking of the probably fate of the college where athletics die out in four years, there naturally comes up

the question of the shortening of the course from four to three or even two years, which is now being agitated considerably. Some colleges, among them Harvard, Brown, and Pennsylvania, will now confer an A. B. or Ph. B. after a three years' course, while President Wilson of Princeton favors a two years' course, thinking that time sufficient training for the struggle with the world. If the college course were shortened to two years, many of the higher preparatory schools by small additions to their curriculum could attain the dignity, if not the name, of "college." This would put the real colleges into very undesirable positions and quite probably throw them out of existence. This closing would deprive many people of a means of livelihood and seriously affect the opportunities for higher education. So in this line also, we see how dependent the college is upon the lower school for its support and existence.

The organizations within the college are also dependent upon the "prep" schools for their continuance. The fraternities furnish the best example of these. If they did not receive each year a certain number of new men into their brotherhood, in the course of time they must inevitably perish; their destruction would obliterate one of the best and most well-known influences that go to frame a man's character, some of them unfortunately. While fraternities are, of course, no essential part of college life, their absence would be keenly felt, and the "non-frat" man thinks he is (and usually he is) "out of things."

Therefore we see very clearly how dependent the college is upon the preparatory school for its very existence, financial, intellectual, athletic. Were we deprived of the "prep" school, nearly everyone must of necessity become illiterate and uncultured, and of course the college in four years at the most must succumb to its fate. Perhaps, if people saw how totally absent were "prep" schools and therefore colleges, and no chance to educate their children, propagation of the human race would cease, and thus one of the greatest evils imaginable—the nonhabitation of the earth—would be wrought.

AN APPEAL

The exhibition of Mr. Brown's fine paintings of the Acropolis has awakened a general desire to secure these art treasures for X University.

If everyone who would be benefited by this acquisition would contribute a dollar the sum required would soon be raised. It would be too miserable a manifestation of the pauper spirit if we wait until some millionaire will give us the money. And I would especially direct my appeal on this matter to the Democrats, who have, to say the very least, during the past 30 years derived quite as much benefit from X University as the party whose members have made the most generous contributions to its funds. I read in the morning paper a complaint that our school committee is managed too much in the interest of the Republican party. That has certainly not been the case with X. For many years it had a Democratic President.

President Jones was an admirable administrator; but, as a Free Trader and Free Silver advocate, he failed to gain the pecuniary sympathy of those who had hitherto contributed to the funds of this institution. During the whole of President Jones' administration I anxiously looked for some evidence that the Democrats whose relatives profited by the influence of X University were also willing to contribute to it funds, but came reluctantly to the conclusion that they were as little inclined to make personal sacrifices for so good an object as the great heroes of their New York party, from Boss Tweed all the way to Boss Croker, were willing to do in New York State.

Immediately after my arrival in the States, in 1872, I was the guest, at Washington, of an independent Republican, who thought (as now all who understand American history must think) that Charles Francis Adams would make a better President than General Grant.

He hoped for the support of the better element in the Democratic party but at the Cincinnati Convention the blackmailers outvoted him, and nominated a candidate, who, though he was a genuine philanthropist and an excel-

lent newspaper manager, would have made a worse President than General Grant, and like the wounded fox in Aesop's Fables, who, when the hedgehog offered to relieve him of the flies which were feeding on his open sores, replied: "It is useless, they will only be replaced by a hungrier set," the majority of the American people preferred to endure the ills they had, rather than to fly to the unknown horrors of a Greeley-cum-Tammany administration.

We are now on the eve of a presidential election, and have to vote not for the special interests of one little State, but for those of the whole republic. We do not know at present any better candidate than President Roosevelt, and we are sure that he, without the blackmailers that attach themselves to every prosperous cause, will be a much better President than he would be if he were obliged to purchase his reelection by concessions to those blackmailers.

Will not the Democrats aid us in this? To elect one able and trustworthy man, unhampered by the horde of pelf and place hunters who look upon every general election as an occasion to reap a rich harvest of spoils.

THE POWER OF THE SENATE

On March fourth, the last day of the Senate conference, there was a great appropriation bill of vital importance to be introduced. A certain Senator delivered an ultimatum that an ancient claim of his state should be fastened to the bill, or he would defeat the measure. By defeating a measure, some Senator carries on a debate, from the time just previous to the introduction of the bill, until the close of the session thus preventing the bill from being considered. Thus, it is easy to see the effects of the Senate rules, which justly allow a man to do this. A measure is usually defeated, because some Senator thinks that his state will not derive any benefit from the bill.

If this rule is not changed, it will mean that the House of Representatives will have to accept a government, by unanimous instead of majority vote.

Let us compare the Senate of today with that of the seventeenth century: has its standard been raised, or lowered? To be sure, the framers of the Constitution were a distinguished body of men; but do not our Senators of today possess equal qualities? When we consider such a speaker as Reed, such a debater as Spooner, and so discerning a leader as Aldrich, is not one justified in saying, that the Senate of today is up to the standard?

The Constitution provided that representation and direct taxes should be in proportion to the population. Naturally, the larger states fought against paying such large taxes without being more fully represented; while the smaller states immediately demanded a provision that equal representation of states in the Senate should not be amended without it being unanimous. With this unequal representation, one man in one section is equal to one hundred equally good ones in another section. This inequality, which is a great fault in the Constitution, does not only violate our ideals, but it proves disastrous, practically. An instance of this was when the country nearly fell under the silver platform. The Senators from the mining states almost gained the measure, which would overthrow the commercial interests of the nation; but with great difficulty were only stopped by the President. The House of Representatives have the power of making the taxes, and proposing requisite supplies for maintaining the government, but the Senate can amend either one. The power of amending has advanced from a privilege to an abuse, as was seen in 1872, when the Senate instead of amending the "coffee bill," a complete revision of tariff was made. The House of Representatives is an important and full representation of the people. This being the case, should not the House have the preference over the Senate? If the Senate conformed more to the prerogatives of the House, it would mean a greater benefit to the masses at a sacrifice to individual interests. According to the Constitution, no Senator shall hold any office under the

United States except possibly in case of a treaty or boundary, but how many Senators do we see holding other offices, thus lowering the democratic ideas of our government. The expansion of the Senate power in this undemocratic way has given them a tendency to pass laws and make treaties. So, luckily the Constitution provides that revenue bills shall originate in the House, or otherwise the masses would suffer to a great extent.

Finally, if we wish to have a sound government, we must stand firm in our prerogatives and let all disputes be settled by public opinion.

ADVANTAGES OF LIVING IN A COLLEGE TOWN.

There has been for a long time the question, whether or not it is advantageous for a student to continue his course of study in the college in his own city. There are many strong points for either side. Students who attend college away from home have more of the real college life, but, in my opinion, it is better for them to continue in their home life.

Long before one is old enough to contemplate entering college, he is interested in the college, not from the standpoint of a student, but merely as a citizen who takes pride in the university of his own city. Then, when he is ready to enter college, he naturally wants to go there. When he is a student and has become interested in the college sports, his interest increases and he grows deeply attached to his college. Students who attend universities away from their own cities, cannot have this natural interest in their college.

When a student goes to a college in his own city he has the privilege of being at home. This is a great advantage over living away from home with all kinds of associates, because the student is very likely to drift away from his high standards of living. And, when the student lives at his own home, and in his own city, he is able to keep up his relations with his former associates

and friends, while, on the other hand, it is impossible for him to go away from his home and come back again to his former associates with the same old friendship for them.

Any young person entering a strange city has to take considerable time to accustom himself to the surroundings. A student, who is usually rather young, and unused to traveling, has two things to become accustomed to. In addition to acquainting himself with the city he has to acquaint himself with the college and college customs.

On the other hand, a student who has lived in the city a long time before entering college, knows the city well (and is already acquainted with it). He may have been, very likely, accustomed to go to the university to visit and so he would know the college and a few, at least, of the college students. Then he would be known and would be likely to be taken into a fraternity and so have the real college life. This would do away with all the uncomfortable feelings of homesickness (and it would make him feel right at home.) Thus a student living in a college town has much more interest in his college than he would have for any college which he might attend, and the privilege of living at his own home, and knowing the city.

THE VALUE OF DEAD LANGUAGES

"Oh, I hate Latin. It is no good anyway. I never can make any use of it, and nobody ever can converse in Latin."

Over and over again these dreadful statements have been made by high and normal school pupils. Now the main reason for these useless remarks seems to be ignorance of both the language itself and its real value.

It is certainly the duty of every language teacher to try to impress her pupils with the importance and value of the language, as well as the rules and translations.

No pupil can work ambitiously upon a language they do not realize either progress from or the uses of.

No high school student ought to expect to be able to

converse in the ancient languages. Comparatively few college students can do this. The accomplishment is confined principally to the professors and teachers of the languages.

Latin and Greek are certainly grand old languages, and it is only after persistent and faithful study, continued for years, that the real value of these languages can be fully realized and the reward for study seem great.

If a student never progresses farther than the high school course permits of these languages, whatever vocation he pursues they will be of some benefit to him.

Many of the words in the English language are of Latin origin, and the ability to translate them readily (after determining from which ancient words they are derived) is often of much consequence. Besides many of the great authors use Latin phrases, and both monuments and tombstones (in America as well as the Old World) are sometimes inscribed in Latin and the Catholic mass of today is often said in Latin.

The English language differs from other European languages, because it is based upon so many different ones.

The fact that Caesar invaded Britain in 55 B. C., accounts for such a large proportion of Latin words in the English language.

"Latin, Greek and Hebrew are so ancient nobody could ever speak them," said a normal school graduate. Surely she didn't suppose the ancients used them for records and inscriptions, and conversed in French or German.

The reason so few people can speak the language is because they do not spend money, energy, and study enough to acquire it.

"What earthly good are Greek and Hebrew?" asked a grammar school teacher (who had laboriously dragged through four years Latin in her school days).

The scholars of old, well versed in these languages, have produced for us Latin and English translations of the Bible. All historical records in the Holy Land were derived from ancient tongues. Hebrew is the source of most of these.

Roman and Greek history (in English) are translations of the dead languages.

God's commandments were translated from Hebrew.

What greater proof of the truth of the Bible can one wish for than to laboriously translate chapters of the Old and New Testaments from ancient Greek? The Roman Catholics consider Latin the Holy Language.

All true ministers believe the Bible, and they are usually familiar with the dead languages.

Let us hope that the day will come, as in years ago, when students will better realize the value of these glorious old languages and not discontinue them after the first year or two in high school, because they are no good.

SHOULD THE AMERICAN NAVY BE MATERIALLY INCREASED ?

INTRODUCTION

I. The question of increasing the American Navy has arisen from the nation's growth in the last few years, and from the rapid development in Asia.

Our existing navy has been built for the needs of the Atlantic Ocean, now we find the need of battle-ships in the Pacific.

II. The discussion of the question will be facilitated by the following explanations:

A. A navy is the entire marine military force of a country.

B. By the increase of the navy, we mean the construction of new battle-ships, torpedo-boats, destroyers, colliers, submarines, and sub-surface boats.

III. The points to be determined are:

A. Is the American Navy large enough to protect the rights of American citizens, wherever they may be?

- B. Is it large enough to support our foreign policy with other countries?
- C. If the navy is not sufficient, to what extent should it be increased?
- IV. Both sides agree that the increase of the navy will be a vast expense to the country and that a good navy is essential.

BRIEF PROPER

REFUTATION

- I. That a large navy is essential for purposes of national defence is unfounded, for
 - A. We have little danger of being suddenly attacked, for
 - 1. No nation would hastily engage in war with America, as she holds one of the highest places among the powerful nations of the world.
 - 2. If America cultivates peace and honest commerce with all the people of the earth, we shall never have to initiate war.
 - B. In former years, America defended itself with a small navy. Now it ranks along with the best navies in the world.
- II. A larger navy is not needed for the ever-increasing American commerce, for
 - A. If the American commerce is hindered, interposition will be made by other nations in behalf of the United States, because
 - 1. The interference with commerce will affect almost every nation on the globe.
 - 2. America is the chief granary of the world.
- III. American colonial possessions are a naval burden, but not so heavy as to require a larger fleet, for

A. The Philippine Islands are in no danger of being attacked by foreign nations, because

1. No power would accept the Islands as a gift, for

a. They have cost America an endless amount of money.

B. The canal-zone is not likely to be attacked, while it is building for

1. It is costing America millions of dollars, which no other nation is willing to spend.

2. If it should be attacked, it could far better be defended by land than by water.

IV. It is not necessary to strengthen the navy, so that the United States may compete with the other principal navies of the day, for

A. It only leads to an inexhaustible competition between the nations for as an example,

1. The American navy was quoted last year in the French Assembly as an argument for enlarging the French navy.

B. America should not hesitate to set an example against rivalry among the nations.

V. A war with Japan is not impending and even if it were it would not be very detrimental to the United States, for

A. There can be no reason to doubt that in such a conflict as the race question, all the nations in Europe would fight on the American side, because

1. Every European nation would know that if the Japs had undertaken to establish the supremacy of the yellow man throughout the world, our defeat would be followed by the defeat of one European nation after another.

BRIEF PROPER

- I. The enlargement of the navy incurs too much extravagance, for
 - A. Sixty-five per cent of the nation's revenue is spent on payment for past war and in preparation for future war and there is only one-third left for judicial and executive departments, etc.
 - B. Sixteen years ago, the navy cost about \$22,000,000 annually, but last year it cost \$135,000,000.
 - C. Our navy is seven and one-half times as large as our navy was when America declared war against Spain.
 - D. In order to have a navy, which will render the nation secure, it will take an endless number of ships, for
 1. America must not only have more ships than any one nation, but more than all nations combined.
- II. The need of a large number of battle-ships is decreasing, for
 - A. The sentiment of the world is for peace, not for war, as is shown in The Hague Conferences, The Pan-American Conferences, and the arbitration treaties.
- III. The battle-ships fifty years from now are apt to undergo a complete change, which will require the absolute reconstruction of the ships, for
 - A. Armor-plate may no longer be used in war-ships, just as man no longer uses it.
 - B. Ships may rely on speed and swift movement, rather than on heavy hulls, for
 1. War will result in bigger risks, as time goes on.
 - C. Any new invention may render battle-ships old-fashioned.
- IV. Monroe Doctrine is being pushed too far, for
 - A. America may interfere too far in the affairs of other nations

B. It is only another way of saying "might makes right."

V. The enlargement of the United States navy should be stopped for a couple of years at least, for

A. There is a feeling that the increase of the navy is being carried too far.

B. Our national treasury is threatened with a deficit.

C. It is difficult to secure men to man all the ships America has.

CONCLUSION

I. Since the enlargement of the navy is unnecessary and very extravagant;

II. Since the need of a large number of battle-ships is decreasing, and the sentiment of the world is for peace;

III. Since, fifty years from now, battle-ships are apt to be old-fashioned;

IV. Since the Monroe Doctrine is being pushed too far;—
Therefore, the navy should not be materially increased for a couple of years, at the least.

A HOUSE

The building, which I am about to describe, is a large dwelling house. It is a three story house. It is made of red brick. The front of the building faces toward the south. There is a large door in the front of the house. There are also eight windows facing the south. On the east side of the house there is a large porch and a door entering onto this porch. There are seven windows on this side of the house. On the north side of the house is a small door entering the kitchen and also a door entering the

cellar. There are six windows on this side of the house. On the west side of the house there are no doors. There are seven windows on the west side of the house. It is a very simple house and yet it is a very good looking dwelling.

A BALL-GROUND

Across the street from my home is a vacant lot. This field has been used for ball playing for many years. At one time it was a large field where big games were played, but little by little it has been sold for house lots. It is now hardly big enough to play ball on. In fact if the ball is hit very hard in either direction there is usually some window glass to pay for. Up till four years ago the lot was in the shape of a square, but now in three of the corners there are houses and on one of the sides there is a large billboard.

THE NEW YORK STOCK EXCHANGE BUILDING

To New Yorkers a source of pride is the New York Stock Exchange. The building of this institution is one of the most ornamental which in this era of building, in that city, have been given to New York. Located on one of the broadest streets, diagonally across the way from the historical sub-treasury building and opposite to the offices of the noted financier J. P. Morgan, it commands the attention and admiration of everybody. In contradistinction from the tendency to construct very high buildings the "Stock Exchange" is low, but what it has lost in height it has gained in beauty. Massive columns of finest marble, constructed according to the Corinthian pattern, constitute a chief element of the beauty of its exterior. Above these is a roof resembling the style of the ancient Greek temples, and for which the ornamental figures, that are to embellish it, have not yet been com-

pleted. Passing the building at evening, one cannot help observe the artistic nature of its illumination. Through the immense windows a soft, pale blue light streams forth. This appears to be produced by having the electric light globes of a light blue color, and placed within small niches in the ceiling. As we go from consideration of the artistic to that of the practical elements of this building, probably the first that would attract a visitor's attention would be the extensive system of telephones which occupies a considerable floor space. The walls exhibit huge systems of marking stock quotations by means of electric buttons for the convenience of members. A visitor's gallery admits to a perfect view of the interior. No one, who has once visited the "Exchange" during the hours of a busy day, is ever likely to forget that sight, which for excitement finds not its equal in the busy business world.

WATCH HILL

When a person stands upon one of the long boat-wharfs of Watch Hill, and looks toward the shore, he sees a view that he remembers many years. The wharf extends about two hundred feet out into the ocean. On the left, across the blue ocean, one can see a long peninsula which forms the Little Narragansett Bay. On the point of this peninsula stand the white fort with its large cannon and the steel-colored barracks of Fort Mansfield.

On the right of the spectator, a stone's throw away, is Watch Hill Point. The most prominent thing here is the Light House with the high white tower. Near it is the squatty Life Saving Station.

Watch Hill proper, in which we are most directly interested is straight ahead. A little to the left is the bathing beach with its long stretch of fine white sand. The bath houses are a little distance from the shore. There are two sections. One is called the public section, for anybody may use these; and the other one is called the private section, for only those who buy season tickets are

allowed to use them. Directly in the middle of the foreground is seen the principal street of the resort. On this are situated all the stores. They consist of markets, grocery stores, drug stores, shore dinner houses and other small stores characteristic of such places. There are also two hotels upon this street. These hotels are surrounded on three sides by large, broad piazzas, upon which dances are often held.

To the right of the street a bluff overlooks the ocean and on this are situated four of the most costly cottages of the resort. These cottages are very neatly arranged, surrounded with fine green lawns that are carefully cared for. These green lawns are interlaced with white cement walks that curve and wind about.

To the left of the street Little Narragansett Bay is seen, in which all the launches and sail-boats are kept. Across the Bay rise the ragged hills upon which some very beautiful cottages are built. Many of these cottages are over a hundred feet long and can be seen from a great distance. To the right of these cottages the hills continue and pass out of sight on the distant horizon.

The cottages that I mentioned previously, that have such fine lawns, have a large sand-dune for a background, and a pretty little legend is connected with this hill, from which the resort got its name. The legend has been told in many different ways but to me the most appropriate is this. The Indians who inhabited Long Island were most bitter enemies to the Narragansett tribes, whose home was in this section of the country. The Narragansetts set out from the main land, in their many canoes, to fight the Montauks on Long Island. The Narragansett warriors had been gone a long time and nothing had been heard of them. One of the Indian girls was in love with one of the Narragansett warriors, and she went daily to this sand-dune and watched for the return of her lover.

Far over the top of this sand-dune is seen the Club House. The club house belongs to the Misquanicut Golf Links and every afternoon great numbers of the cottagers

and hotel guests go to the Club to spend the afternoon either at golf or tennis.

Watch Hill covers an area about two miles square, contains seventy-five cottages and six large hotels. There are people from all over the United States who come to the resort for the summer. It is renowned for its fine bathing beach and the exquisite landscape that surrounds the Hill.

A DAY'S EXPERIENCE

One day this summer I went to a small town about nine miles from my home, to play baseball. The game began at about ten o'clock and was finished about eleven-thirty. I had intended to return home on the twelve-thirty train, and as there was an hour to wait, I had dinner. I then walked for some distance and at last came to the railroad.

While I was waiting for the train, two men came walking along the railroad tracks. I asked them when the train was due and they told me it did not stop unless by special orders, and that there was not another that would stop before five.

As I wished to reach home before three o'clock I decided to go by the way of Norwich. This was a much longer journey than if I had taken the first train, but after walking some distance I came to a small station. From here I rode to Norwich. I reached Norwich about two-fifteen. From here I took the electric car for New London. From New London I took the ferry to my own town, and arrived home at about four o'clock, after rather a long trip, but before I would have had I waited for the five o'clock train.

A MIDNIGHT RIDE

One evening two of my friends and I went to a neighboring village about fifteen miles from the town in which we were spending the summer. We stayed at this town,

dancing at its casino, until about eleven o'clock and then we started on our way home in a large touring car. We had just struck the main road from the casino, when I thought to look and see if we had enough gasoline to get home. I found that I had made a very fortunate investigation, for looking into the gasoline tank, I saw that we had only about one gallon of gasoline left, and this was not enough to carry us home. So we turned back to the small town again, and seeing a gasoline sign hung out in front of a store we stopped and got ten gallons more.

Now our trip home began again, and this time for sure. Once more we were on the main road and as my friend, who owned the car, was an expert driver, he opened up the throttle and we spun over the road at a good rate.

It seemed rather strange to be rushing over the road in the dead of night, with two bull's-eye lamps showing up the road before us. We passed many farm houses that were blacker than coal and now and then a dog would bark as if to warn his master that someone was in the neighborhood.

Soon we struck a portion of the road that was being repaired and as it was either covered with large chip stones or else was all sand, we were obliged to go very slow. Now and then the car would sway as it struck a big hole in the road, and once I thought that we would be tipped out. Presently the road became good again and throwing on all the power we once more hummed over the road. As we passed close by pastures we could see the cattle grazing or lying down in the fields. Soon we climbed a long, steep hill and from the top of this we could see the ocean away off to the south with its glittering lights on the passing steamers.

Presently we saw a dim haze in the sky and as we drew closer, saw the lights of a small village in the distance. We knew that our own home was only three miles distant and when we came to the top of another hill we saw it lying in almost total darkness before us. When we reached home we met a large car full of our friends who lived in a small town five miles from our home. They had

been out on a "joy ride" and when they reached our home their car had become disabled and as they wished to get home that night, they asked us to tow them home. We went down to the garage, got a piece of strong rope and hitched their car to ours. We were off on the road again, but our progress was greatly decreased, as the car that we were towing was much heavier than our own.

The course led us now in a very winding manner over the hills to the shore of Narragansett Bay, and far over the Bay we could see the lights of Newport. The road now became very level and straight and once more opening the throttle we spun over the three remaining miles with the large touring car in tow.

Suddenly we perceived a dull light a little way in front of us and we knew that our journey was almost at an end. Gradually the light grew brighter until we were directly in front of the garage in which the disabled car was kept. We pushed the car into the garage and then returning to our car, we started for our own home and made the five miles in just twelve minutes.

A FISHING TRIP IN MAINE.

Three years ago next July, I went for what I supposed would be a two months' stay at the "Little Blue" school in Farmington, Maine. That was the first summer the school had been run; since 1848 it had been used as a winter boarding-school for about twenty boys, whose ages ranged from eight to twenty years. The principal was Mr. G. G. Abbott, son of the late Rev. Dr. H. A. Abbott, author of the well-known Rollo books; in fact, the scene of these stories is laid in the country round about Farmington. Although the school was hardly one in the strict use of the word, yet it might be called such, for four hours of work a week was required; however, we were left free to choose our own courses. It was, then, while at "Little Blue" that the following circumstances occurred, which were to materially shorten my vacation.

We arrived in Farmington late on the afternoon of July 2. About three weeks later, or, to be exact, on Saturday, the twenty-first, one of the instructors, ———, Brown '99, and three of us Providence fellows, ———, ———, and myself, set off down the river about half-past ten. We had ridden our bicycles about two miles out from the village and then left them in a barn near the point where our canoe was secreted. Two of us paddled slowly along, while the other two trolled for pickerel and black-bass. If one has never been fishing in this way, with his canoe gliding noiselessly along a quiet stream, which has scarcely any current except near either shore, and with his supple steel pole bending gracefully when the water resists the metal trolling-spoon, making it spin round and round as it gleams in the sunlight on the water's surface, he cannot realize or even imagine the thrill of joy and excitement that goes through one when a tug on the line is felt, and a silvery something jumps a few feet in the air and then disappears under water. As soon as this tug is felt, your companion knows it by the slight cry that escapes you and paddles a little more steadily to offset the force that is trying to pull the canoe backward. The angler turns his reel slowly, but never allows any slack in the line, lest the gamey fish take advantage of his carelessness, and by jumping suddenly out of the water break the line or tear the hook from its gills. By continuing this steady reeling, you gradually bring the bass to the surface near the canoe, and deftly land him in it.

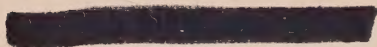
It was in this way that we caught our bass and pickerel on the six-mile trip to Farmington Falls, locally known as the Falls village. We had no occasion for haste, but paddled slowly down-stream, watching the sand-swallows in their nests, or rather holes, that they had made in the high banks, which at intervals lined the shores on both sides for a considerable distance. Shooting the rapids, which could only be distinguished by the choppiness and very deep blue color of the water, furnished us keen excitement, and reminded me of the days when stolid Indian warriors must have shot those same rapids in their light

birch-bark canoes. The time passed quickly, and we were surprised to find out it was half-past four when we arrived at the Falls village. Here we learned of a large fire that had totally destroyed "Little Blue"; and we four miles away by the nearest route, the road.

We secreted the canoe in a clump of thick bushes near the river's edge, and walked the two miles back along the road to where we had left our bicycles. Thence we made good time home, only to find a mass of blackened ruins, which were still blazing fiercely. Nothing, save some very valuable books, the piano, and the more expensive furniture, had been saved: everything of ours has gone up in smoke, and all we owned was what was on our backs. You may imagine my condition when I tell you that I had worn on the fishing-trip my oldest bicycle suit, sneaks, and an old shirt. I had taken my watch, but no money. Mr. ——— lost everything he had in the world, except what he was wearing, with little chance of replacing his loss for some time to come. That night ———, another Providence fellow, and myself stayed at a house where a lady who had taught us both in grammar-school happened to be visiting. The next afternoon, Sunday, Mr. Abbott packed us off to a camp, some seven miles distant, on the edge of a lake, although a hundred feet above it, where we remained until the thirty-first of the month. After obtaining some clothing from home, ——— and I returned, glad that the fire had occurred in the daytime, but sorry to have lost our summer's outing.

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